SAMSUNG

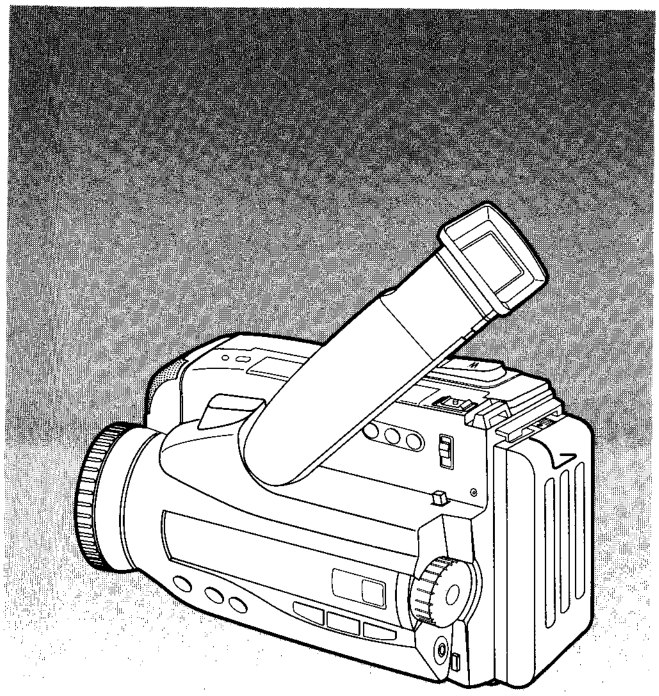
8mm CAMCORDER

VP-H68

Hi 8

SERVICE Manual

8mm CAMCORDER



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1. PRECAUTIONS

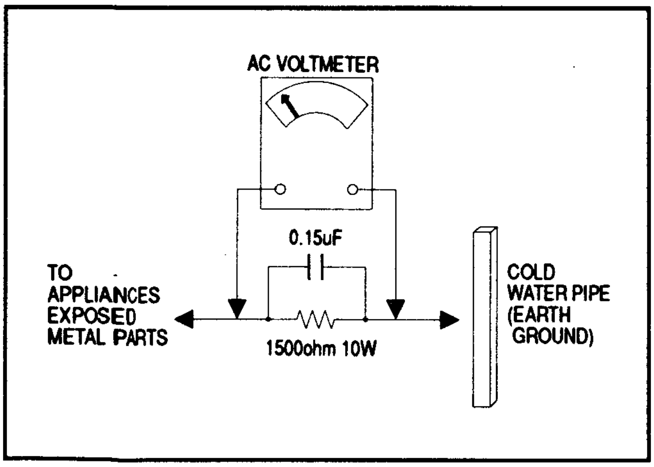
1-1. SAFETY PRECAUTIONS

GENERAL GUIDE LINE

1. When servicing, observe the original lead dress.
   If a short circuit is found, replace all parts which have been overheated or damaged.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation paper shields are properly installed.
3. Use an isolation transformer when servicing.
4. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screw heads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1 to 5.2 megohms.
   When the exposed metal does not have a return path to the chassis, the reading must be oo.


AC VOLTMETER
0.15uF
TO APPLIANCES EXPOSED METAL PARTS
1500ohm 10W
COLD WATER PIPE (EARTH GROUND)

LEAKAGE CURRENT HOT CHECK (See Fig.)

1. Plug the AC cord directly into the AC outlet.
   (Do not use an isolation transformer for this check.)
2. Connect a 1.5K, 10 watt resistor, in parallel with a 0.15uF capacitor, between each exposed metallic part on the set and a good earth ground such as a water pipe.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester may be used to make the hot checks, leakage current must not exceed 0.5 milliamp. If a measurement is outside the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

1-2. ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called "Electrostatically Sensitive (ES) Devices". Examples of typical ES devices are integrated circuits, some field effect transistors and semiconductor "chip" components.
The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals.
   These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise, harmless motion such as the brushing together of your clothes fabric to the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

1-3. SAFETY INSTRUCTIONS

1. **Read Instructions** : All the safety and operating instructions should be read before the unit is operated.

2. **Retain Instructions** : The safety and operating instructions should be retained for future reference.

3. **Heed Warnings** : All warnings on the unit and the operating instructions should be adhered to.

4. **Follow Instructions** : All operating and maintenance instructions should be followed.

5. **Cleaning** : Unplug this unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a dry cloth for dusting cabinet.

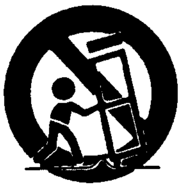
6. **Attachments** : Do not use attachments not recommended by the unit product manufacturer, as they may be hazardous or cause damage.

7. **Water and Moisture** : Do not use this unit near water, i.e, bath tub, wash bowl, kitchen sink, laundry tub, in a wet basement, near a swimming pool, or the lake.

8. **Accessories** : Do not place this unit on an unstable cart, stand, tripod, bracket, or table. The unit, if dropped could cause damage or injury. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the unit. Any mounting of the unit should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.

a. An appliance and cart combination should be moved with care. Quick stops, excessive force, or an uneven surface may cause the appliance and cart combination to overturn.

PORTABLE CART WARNING
(Symbol provided by RETAC)



9. **Ventilation :** Slot and opening in the cabinet are provided for ventilation to ensure reliable operation of the unit and to protect it from overheating. These openings must not be blocked or covered. Never place your unit on a bed, sofa, rug, or similar surface, ;or on or near a radiator or heat register. This unit should not be placed in a built-in installation such as a book case or rack unless proper ventilation is provided, or manufacturer's instructions have been adhered to.

10. **Power Sources :** This unit should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. To operate the unit by battery or other power source, consult the operating instructions.

11. **Grounding and Polarization :** This unit may be equipped with either a polarized 2-wire AC line plug (a plug having one blade wider than the other) or a 3-wire grounding type plug, a plug having a third (grounding) pin. The 2-wire polarized plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to replace your outlet. Do not defeat the safety purpose of the polarized plug.

12. **Power-Cord Protection** : Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. This applies especially to cords of plugs and convenience receptacles, at the point where they exit from the unit.

13. **Lightning** : For added protection of this unit during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage of the unit from lightning and power-line surges.

14. **Power Lines** : An outside antenna system should not be located in the vicinity of overhead powerlines or other electric light or power circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

15. **Overloading** : Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

16. **Objects and Liquids :** Never push objects of any kind into the unit as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquids of any kind onto the unit. Should a spill occur, unplug unit and have it checked by a technician before using.

17. **Servicing** : Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards.
Refer all servicing to qualified service person.

18. **Damage Requiring Service** : Unplug this unit from the wall outlet and refer servicing to qualified service personnel under the following conditions :

   a. When the power-supply cord or plug is damaged.
   b. If any liquid has been spilled into, or objects have fallen in the unit.
   c. If the unit has been exposed to rain or water.
   d. If the unit does not operate normally by following the operating instruction, adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.

WARNING ;
Lithium battery - Danger of explosion if incorrectly replaced. Must only be replaced by a battery of same make and type. Used batteries shall be returned to the supplier.

   e. If the unit has been dropped or the cabinet has been damaged.
   f. When the unit exhibits a distinct change in performance, this indicates a need for service.

19. **Replacement Parts** : When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

20. **Safety Check** : Upon completion of any service or repairs to this unit, the safety check procedure should be performed.

IMPORTANT SAFETY NOTICE
There are special components in this equipment which are important for safety. These parts are marked by ⚠ in the schematic diagram, exploded views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts owing to shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

2. SPECIFICATIONS

Specifications are subject to change without notice.

Operation	Description
SYSTEM	
Recording systems	Video : 2 rotary heads, helical FM scanning Audio : FM system
Video signal	PAL colour, CCIR standard
Cassette format	8 mm/ Hi 8 mm
Tape speed	SP mode (Standard Play) : approx. 20.051 mm/sec. LP mode (Long Play) : approx. 10.026 mm/sec.
Playback time	SP mode (Standard Play) : 1 hour 30 minutes (P5-90) LP mode (Long Play) : 3 hours (P5-90)
Fast-forward/rewind time	Approx. 5 min. 40 secs (P5-60)
Image device	CCD (Charge Coupled Device)
Viewfinder	Colour electronic viewfinder
Lens	Combined 12x power zoom and 24x digital zoom lens, f=5.4 ~ 64.8mm, F1.8.; auto wide macro; filter diameter 46mm
Automatic focus system	Inner
Colour temperature	Auto/indoors : 3100° K; outdoor : 5100° K
Lighting	> 300 lux (28 footcandles); minimum lighting : 3 lux
Aperture correction	Automatic with back light adjustment
INPUT/OUTPUT CONNECTORS	
Video output	Phono jack/S-VIDEO jack, 1 Vp-p, 75 ohms, unbalanced, sync negative
Audio output	Phone jack, 7.5 dBs for an output impedance of less than 2.2 Kohms
RFU DC OUT	Special mini-jack, 5V DC
Earphone output	Minijack, 8 ohms
GENERAL	
Power requirement	AC power adaptor (7.5 V); battery pack (6.0 V)
Power consumption	7.8W (in Camera mode)
Tripod attachment thread	Attachment screw less than 9mm long
Microphone	Electric condensor microphone, omni-directional, stereo type
Temperature range	Operating : 0° C to 40° C (32° F to 104° F); storage : -20° C to 60° C (-4° F to 140° F
Dimensions/weight	Approx. 101X109X198 mm(3.9X4.1X7.8 inches); approx. 780 g (1.65 lbs) Excluding battery pack and cassette

3. DISASSEMBLY

3-1. INSTRUMENT ASSEMBLY

3-1-1. Cover Housing Ass'y Removal

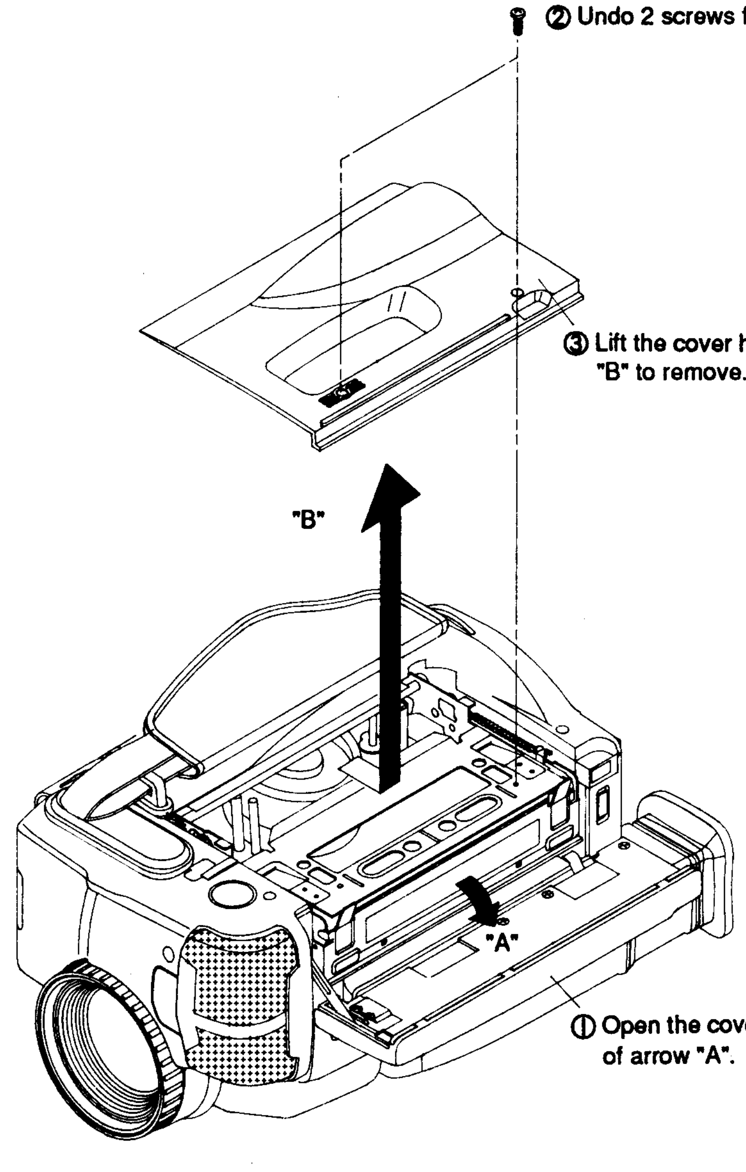

② Undo 2 screws from the cover housing ass'y.
③ Lift the cover housing ass'y in the direction of arrow "B" to remove.
"B"
"A"
① Open the cover case ass'y in the direction of arrow "A".

Fig. 1 Cover Housing Ass'y Removel

3-1-2. Case Front Ass'y Removal

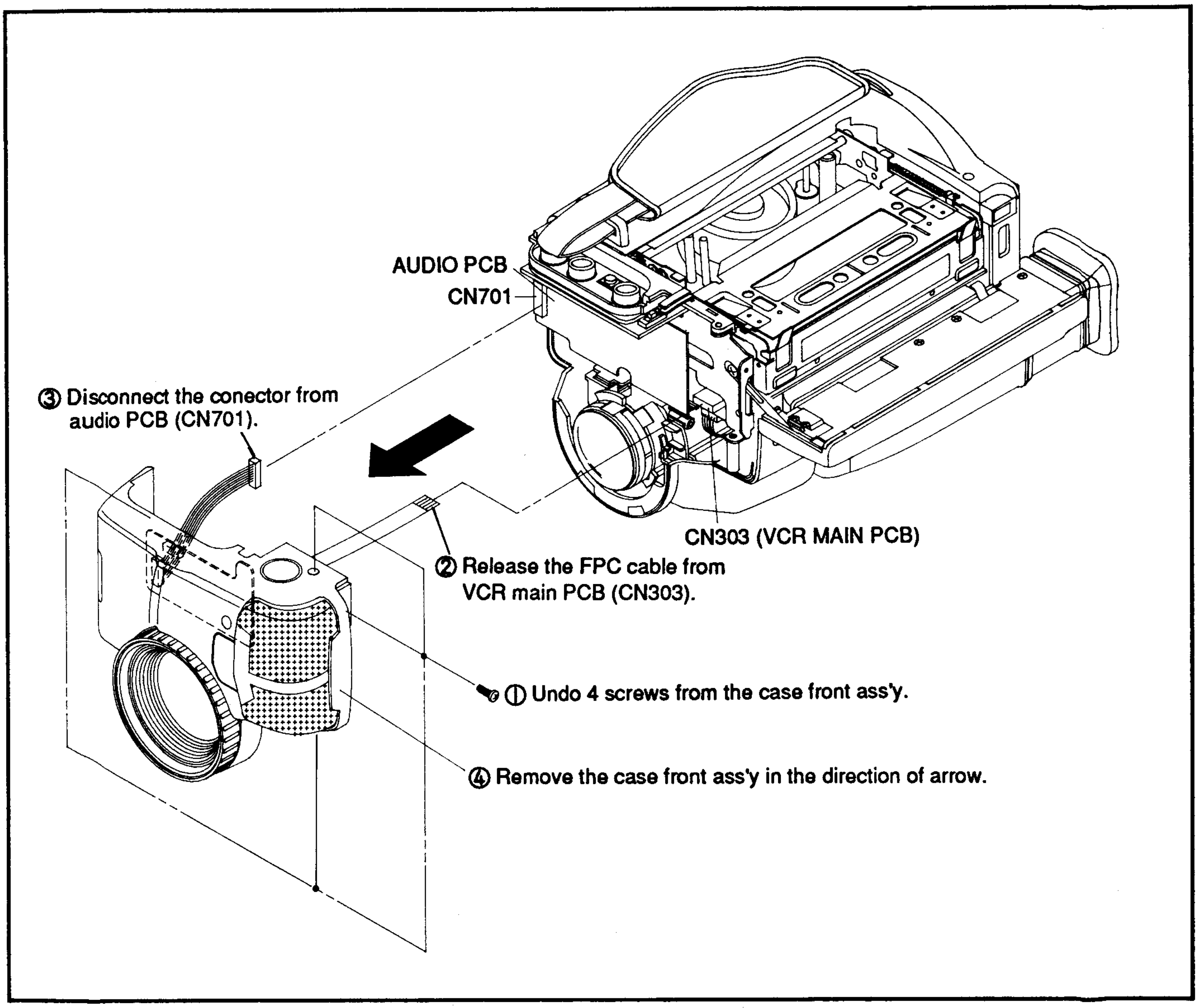

AUDIO PCB
CN701
③ Disconnect the conector from audio PCB (CN701).
CN303 (VCR MAIN PCB)
② Release the FPC cable from VCR main PCB (CN303).
① Undo 4 screws from the case front ass'y.
④ Remove the case front ass'y in the direction of arrow.

Fig. 2 Case Front Ass'y Removal

3-1-3. Case Right Ass'y Removal

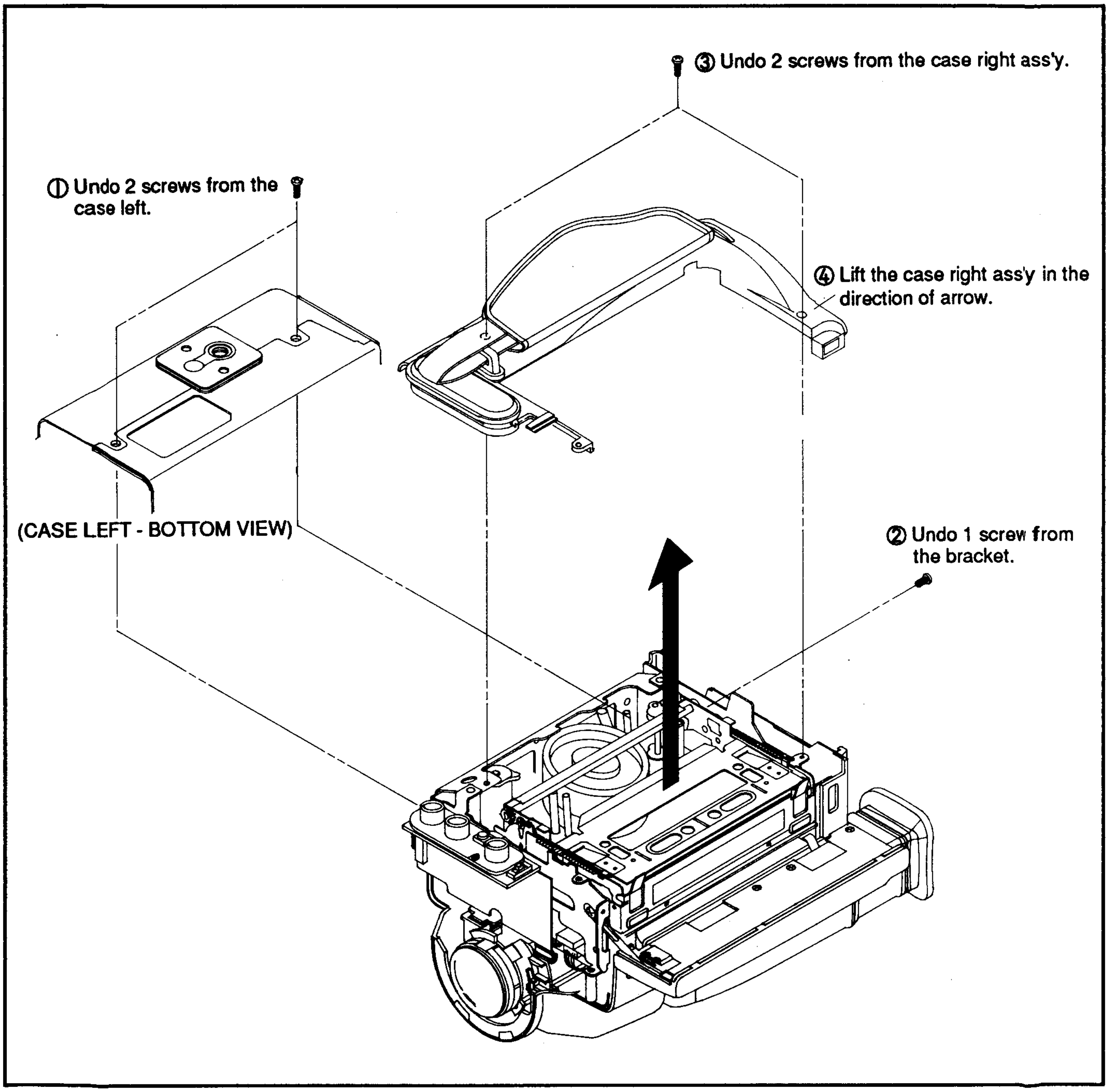

③ Undo 2 screws from the case right ass'y.
① Undo 2 screws from the case left.
④ Lift the case right ass'y in the direction of arrow.
(CASE LEFT - BOTTOM VIEW)
② Undo 1 screw from the bracket.

Fig. 3 Case Right Ass'y Removal

3-1-4. Case Left Ass'y Removal

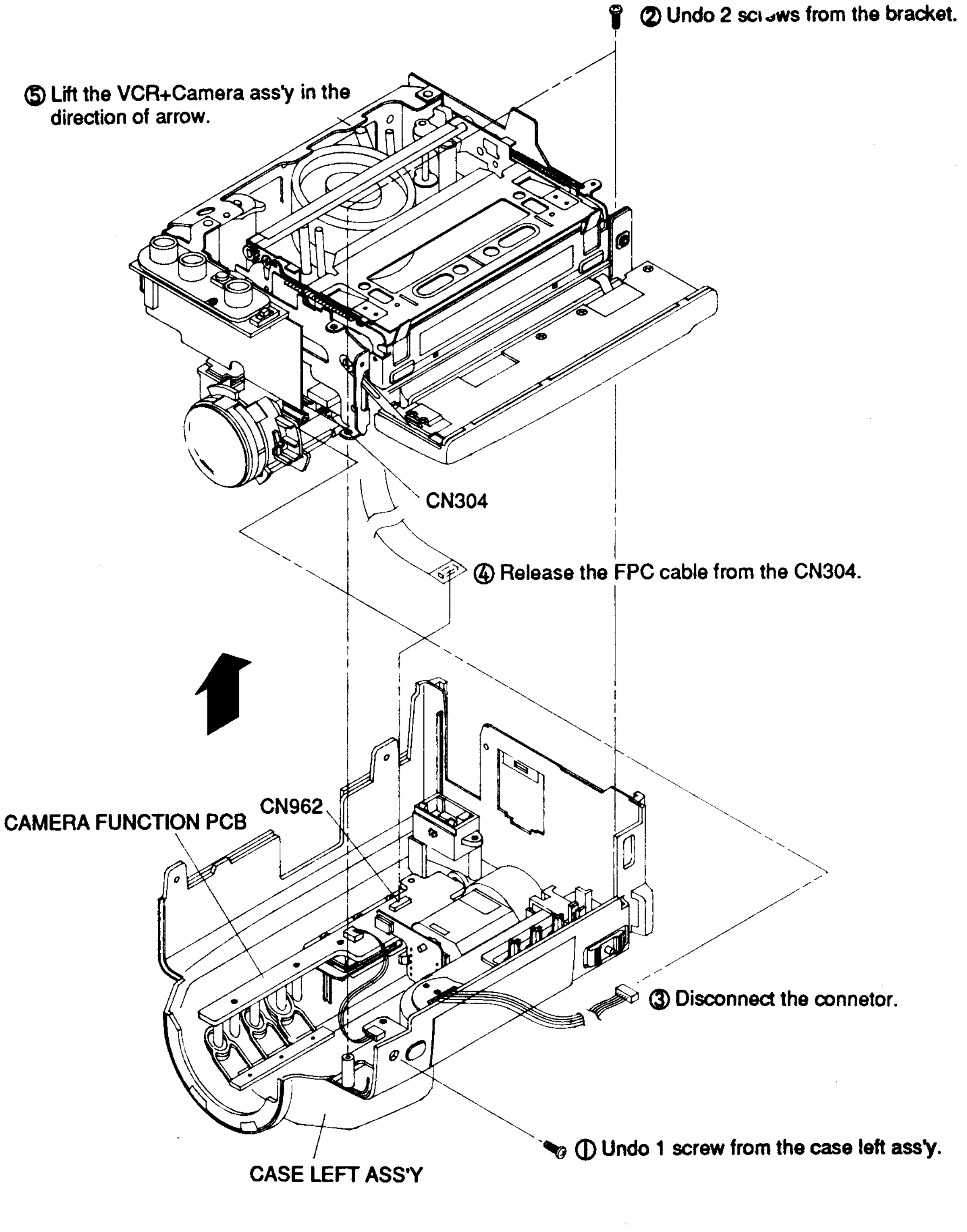

② Undo 2 screws from the bracket.
⑤ Lift the VCR+Camera ass'y in the direction of arrow.
CN304
④ Release the FPC cable from the CN304.
CAMERA FUNCTION PCB
CN962
③ Disconnect the connetor.
① Undo 1 screw from the case left ass'y.
CASE LEFT ASS'Y

Fig. 4 Case Left Ass'y Removal

3-1-5. Camera Function PCB Removal

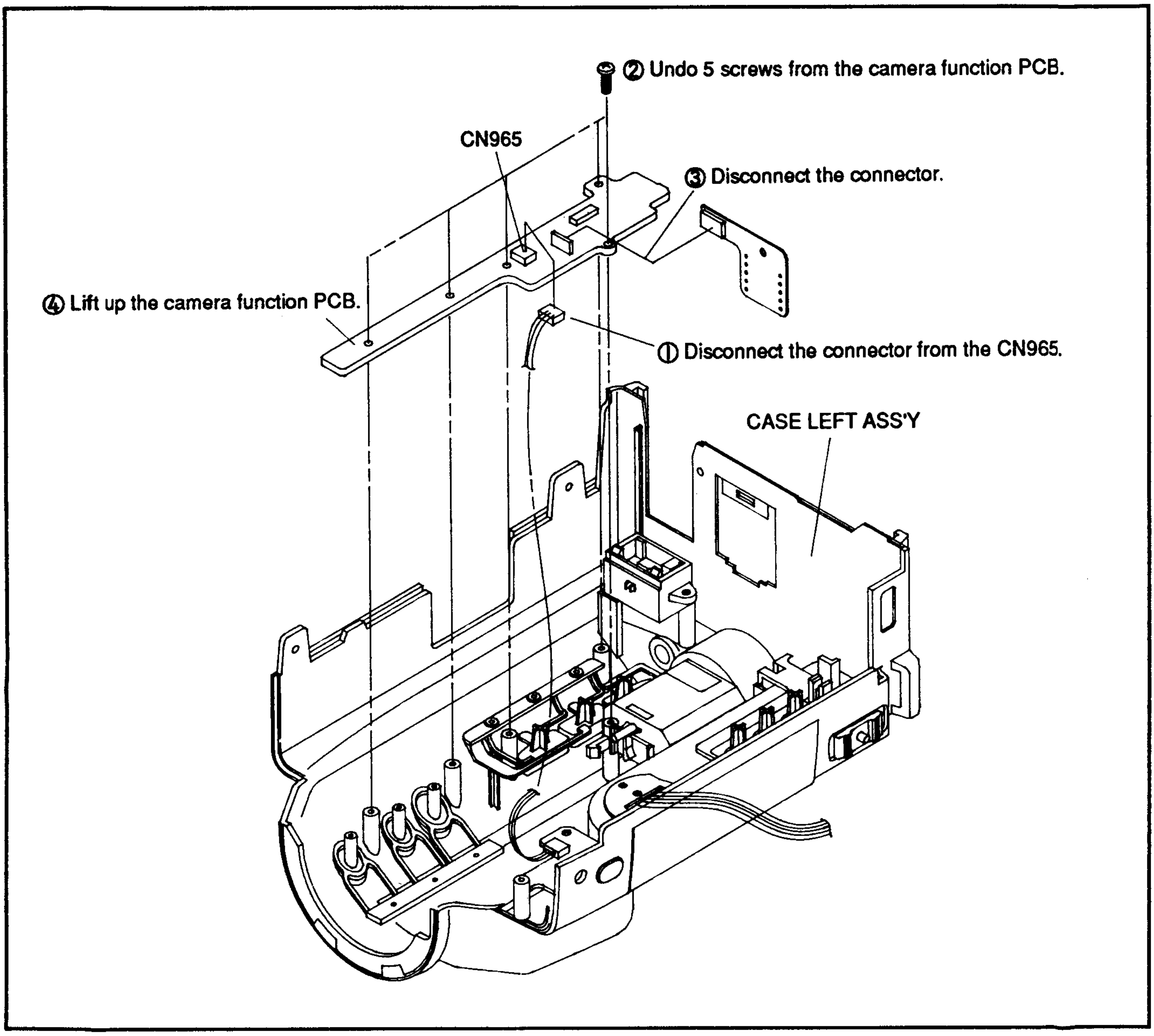

② Undo 5 screws from the camera function PCB.
CN965
③ Disconnect the connector.
④ Lift up the camera function PCB.
① Disconnect the connector from the CN965.
CASE LEFT ASS'Y

Fig. 5 Camera Function PCB Removal

3-1-6. Cover Case Ass'y Removal

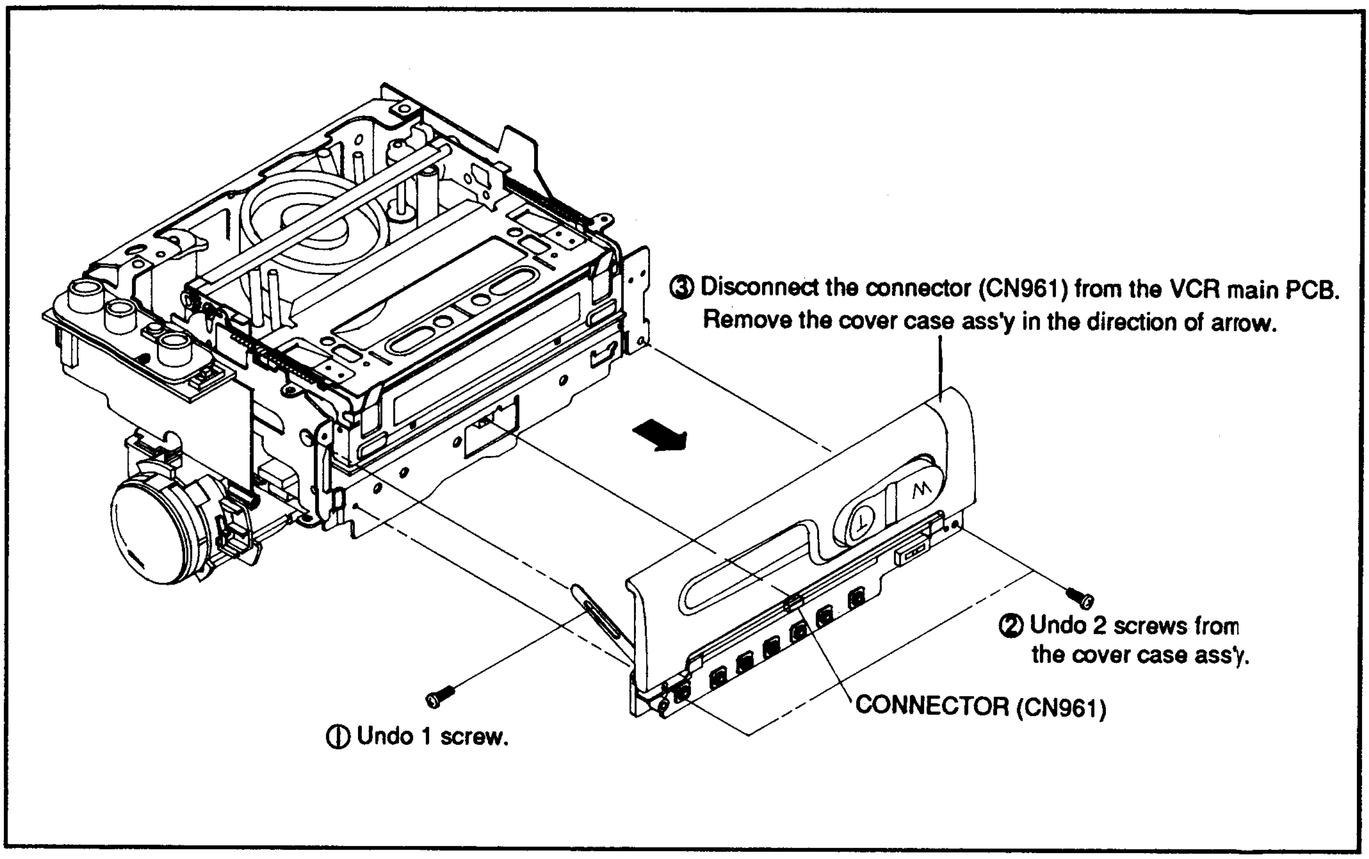

③ Disconnect the connector (CN961) from the VCR main PCB.
Remove the cover case ass'y in the direction of arrow.
② Undo 2 screws from the cover case ass'y.
CONNECTOR (CN961)
① Undo 1 screw.
T
W

Fig. 6 Cover Case Ass'y Removal

3-1-7. DC/DC Converter PCB Removal

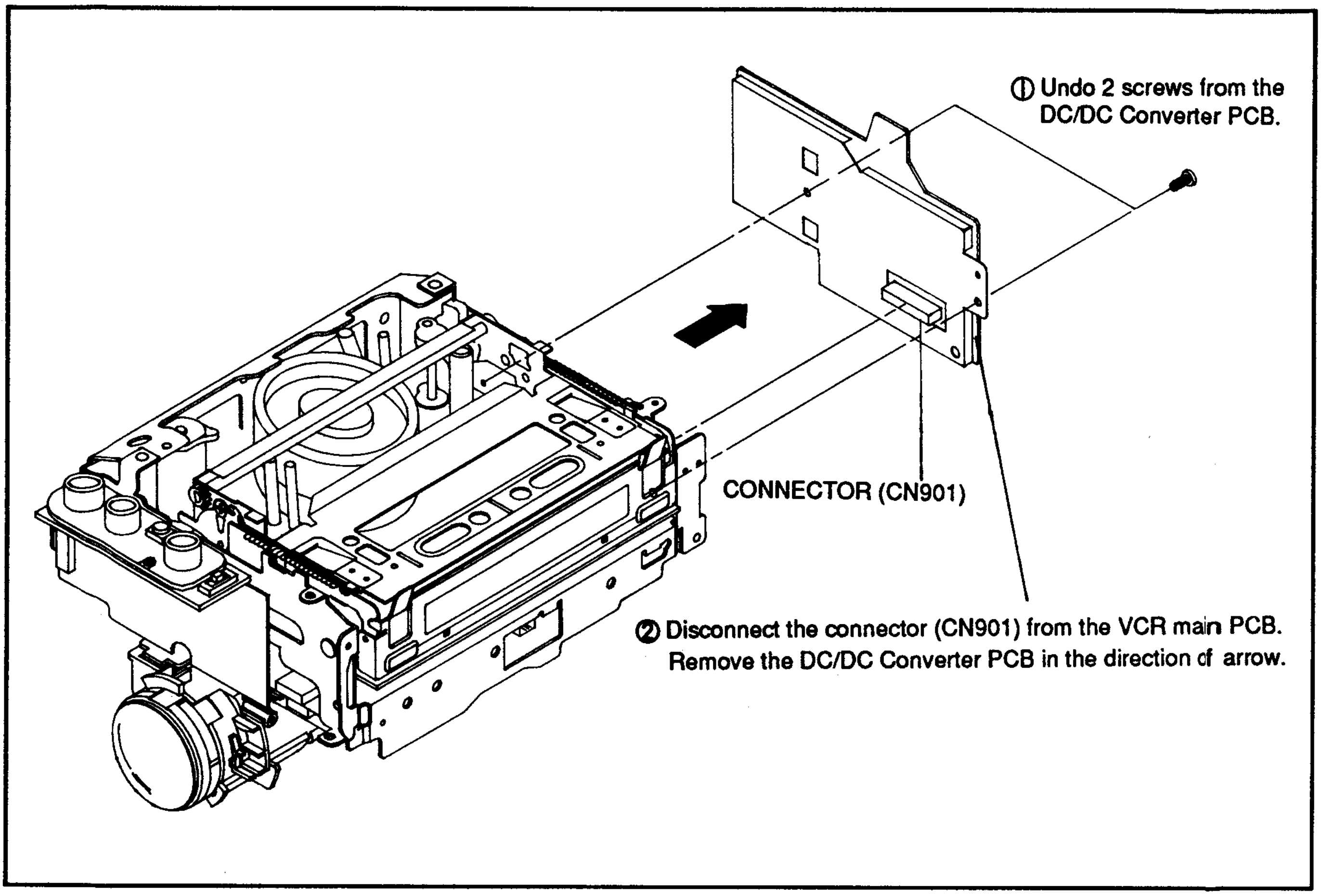

① Undo 2 screws from the DC/DC Converter PCB.
CONNECTOR (CN901)
② Disconnect the connector (CN901) from the VCR main PCB. Remove the DC/DC Converter PCB in the direction of arrow.

Fig. 7 DC/DC Converter PCB Removal

3-1-8. Camera Block Removal

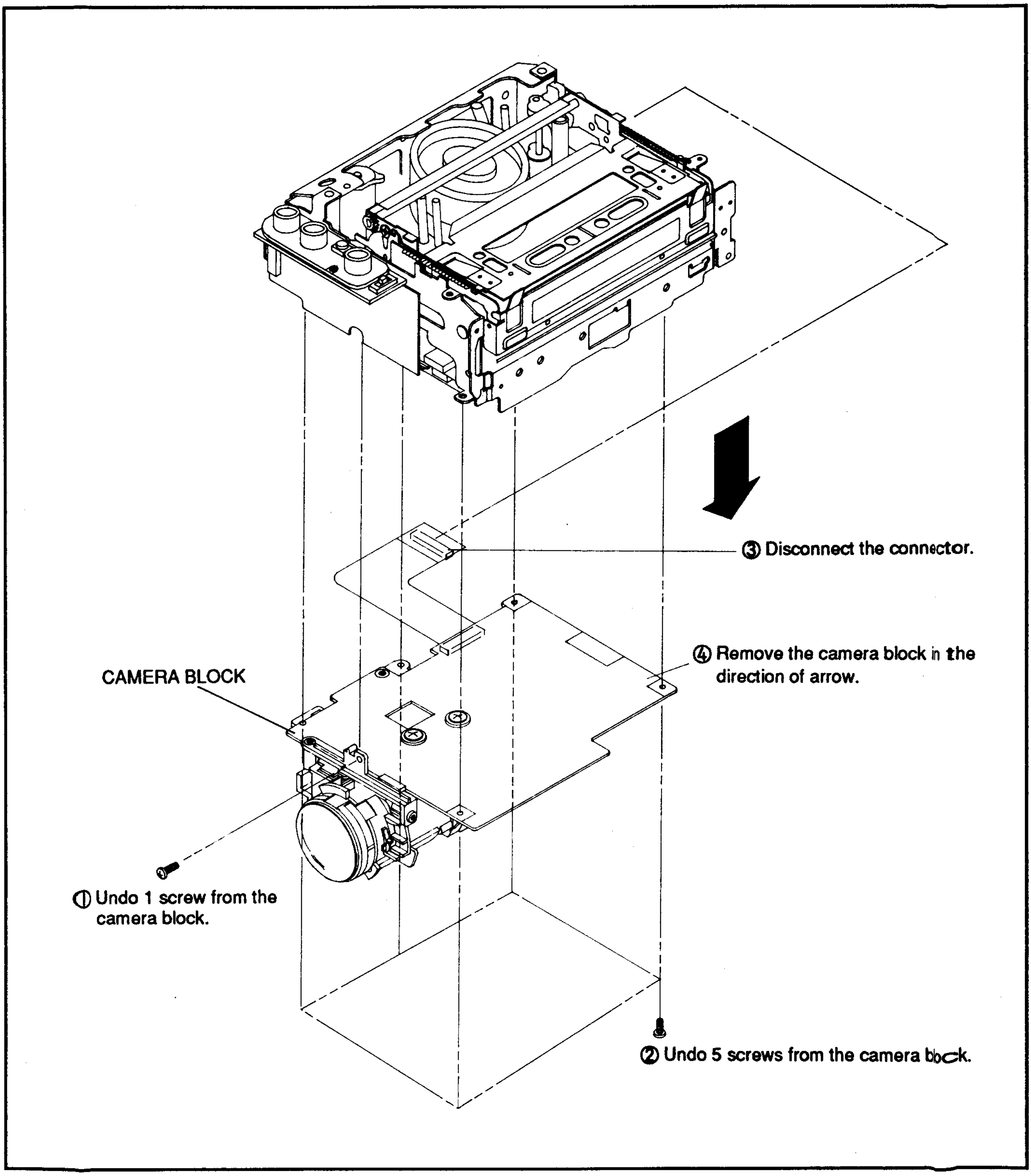

③ Disconnect the connector.
④ Remove the camera block in the direction of arrow.
CAMERA BLOCK
① Undo 1 screw from the camera block.
② Undo 5 screws from the camera block.

Fig. 8 Camera Block Removal

3-1-9. Lens Ass'y Removal

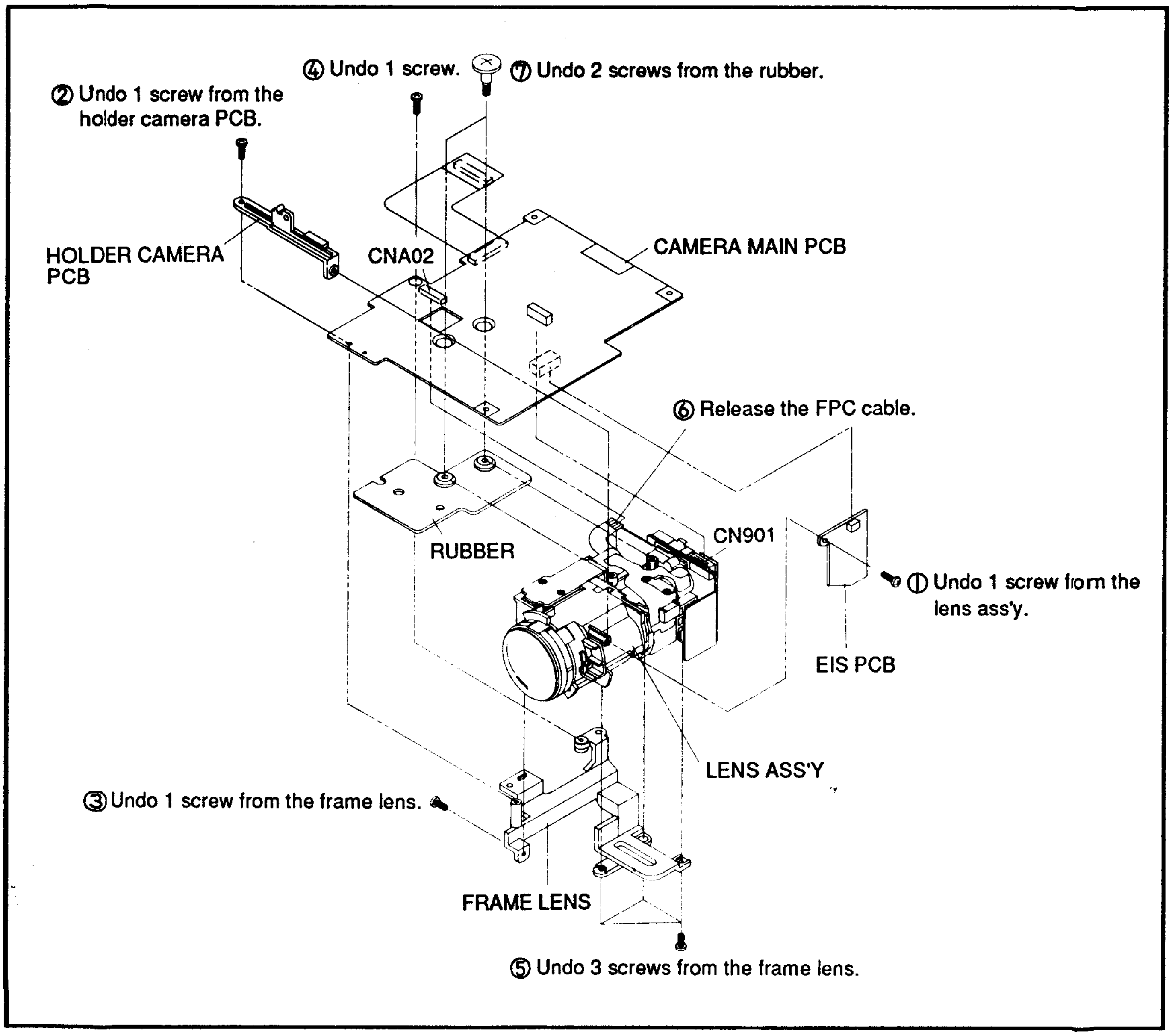

② Undo 1 screw from the holder camera PCB.
④ Undo 1 screw.
⑦ Undo 2 screws from the rubber.
HOLDER CAMERA PCB
CNA02
CAMERA MAIN PCB
⑥ Release the FPC cable.
CN901
RUBBER
① Undo 1 screw from the lens ass'y.
EIS PCB
LENS ASS'Y
③ Undo 1 screw from the frame lens.
FRAME LENS
⑤ Undo 3 screws from the frame lens.

Fig. 9 Lens Ass'y Removal

3-1-10. Frame Removal from the VCR Block

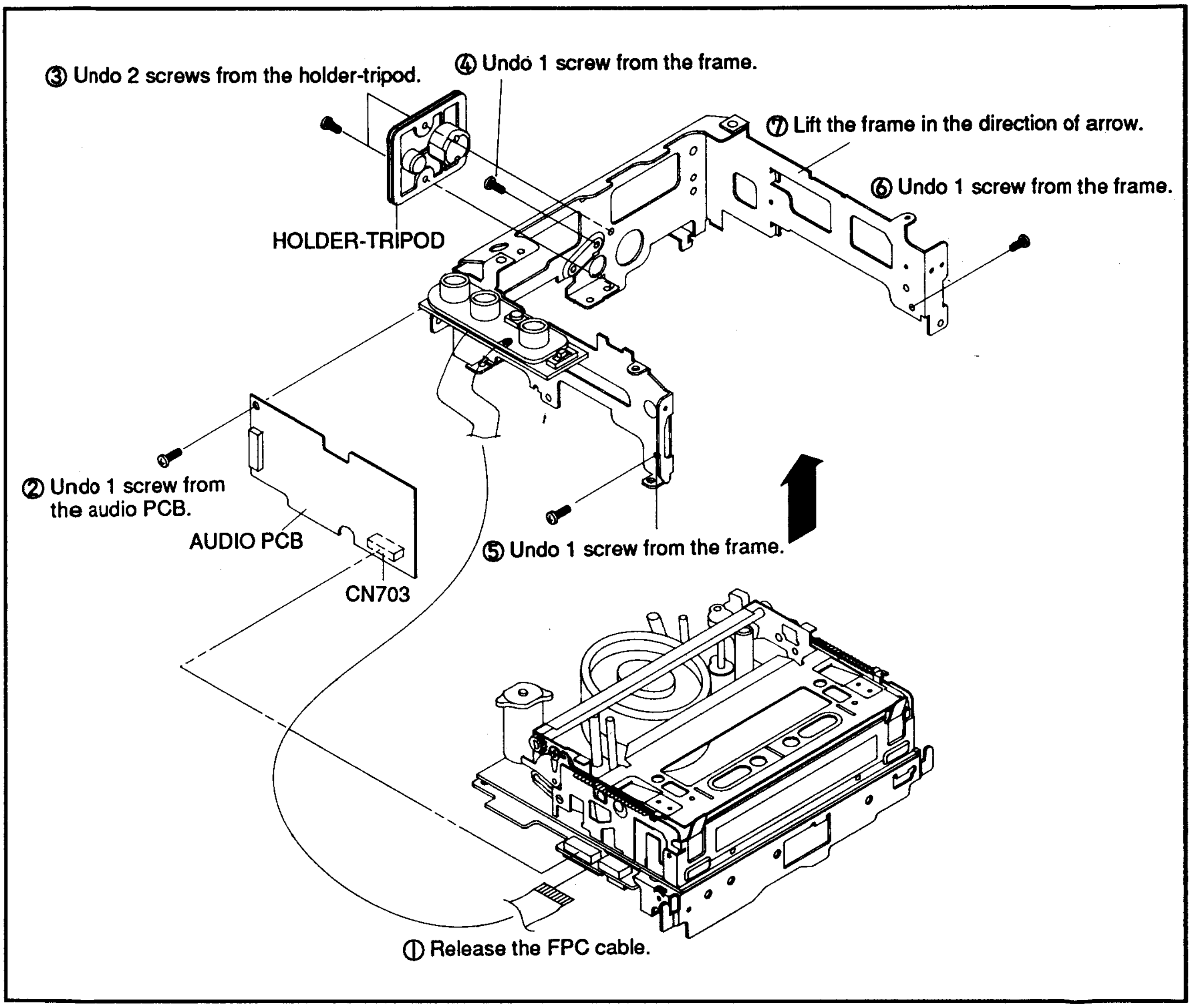

③ Undo 2 screws from the holder-tripod.
④ Undo 1 screw from the frame.
⑦ Lift the frame in the direction of arrow.
⑥ Undo 1 screw from the frame.
HOLDER-TRIPOD
② Undo 1 screw from the audio PCB.
AUDIO PCB
CN703
⑤ Undo 1 screw from the frame.
① Release the FPC cable.

Fig. 10 Frame Removal from the VCR Block

3-1-11. VCR Main PCB Removal

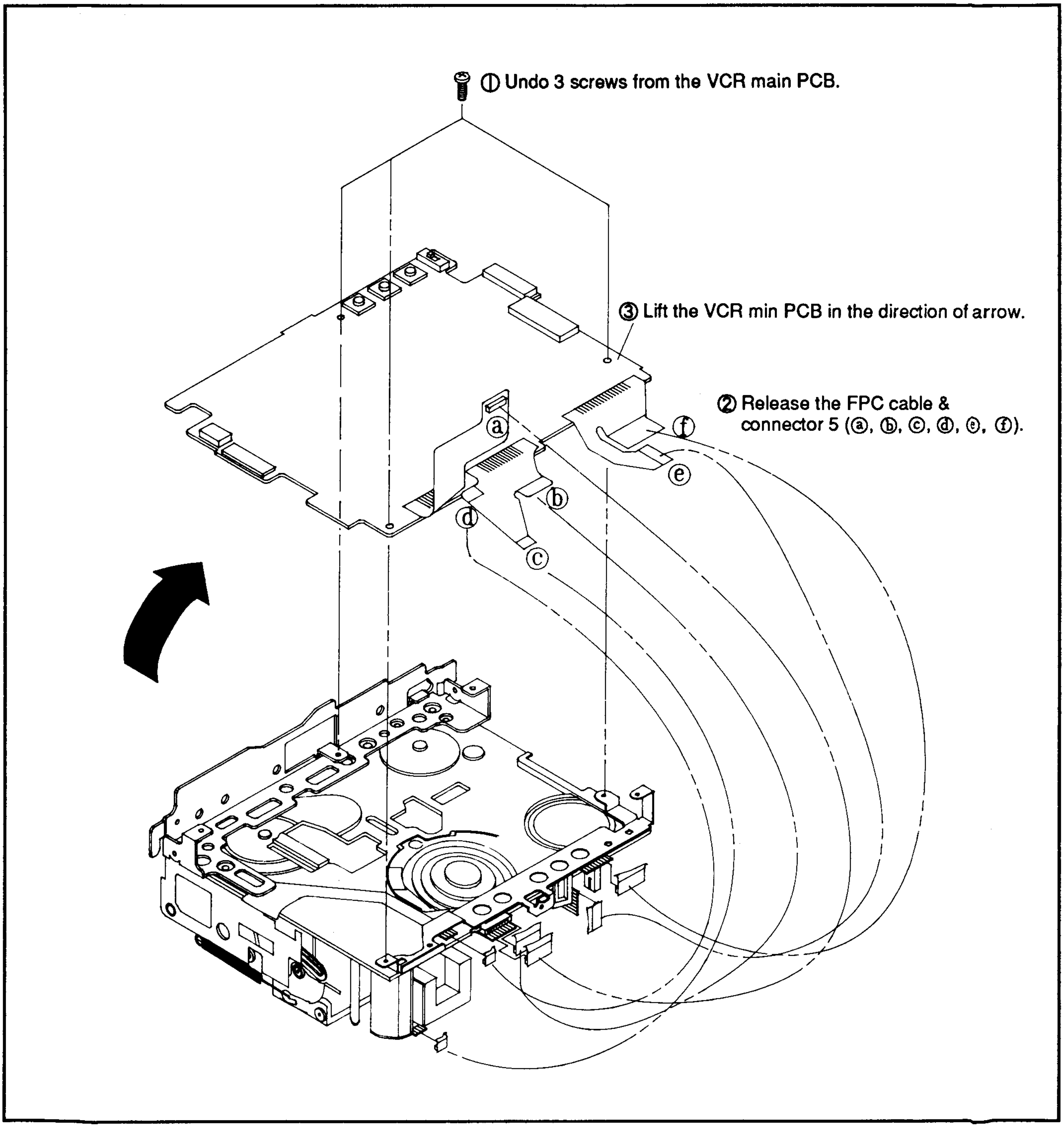
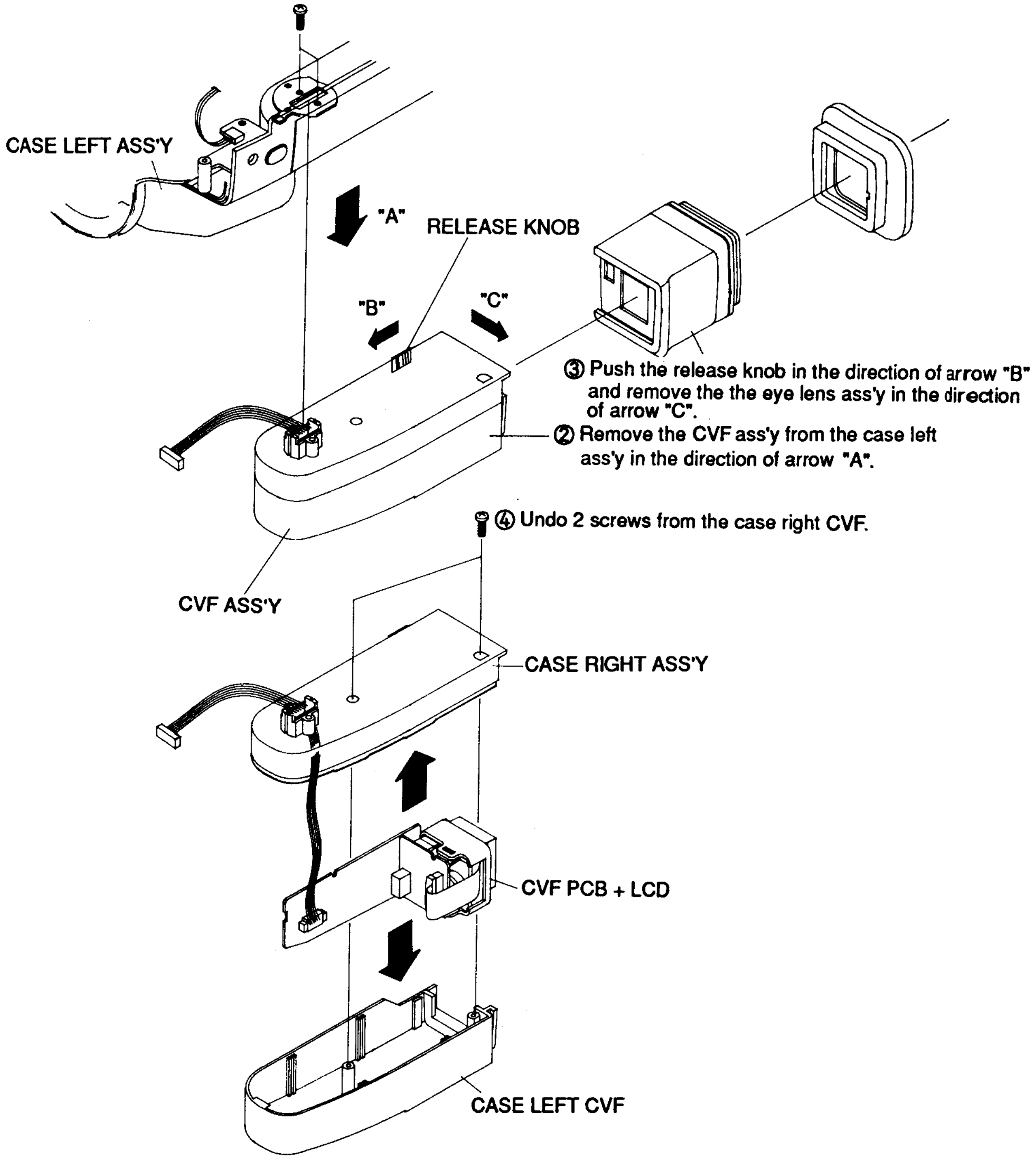

① Undo 3 screws from the VCR main PCB.
③ Lift the VCR min PCB in the direction of arrow.
② Release the FPC cable & connector 5 (ⓐ, ⓑ, ⓒ, ⓓ, ⓔ, ⓕ).
ⓐ
ⓑ
ⓒ
ⓓ
ⓔ
ⓕ

Fig. 11 VCR Main PCB Removal

3-1-12. CVF ASS'Y Removal


CASE LEFT ASS'Y
"A"
RELEASE KNOB
"B"
"C"
CVF ASS'Y
CASE RIGHT ASS'Y
CVF PCB + LCD
CASE LEFT CVF

① Undo 2 screws from the case left ass'y.

② Remove the CVF ass'y from the case left ass'y in the direction of arrow "A".

③ Push the release knob in the direction of arrow "B" and remove the the eye lens ass'y in the direction of arrow "C".

④ Undo 2 screws from the case right CVF.

Fig. 12 CVF Ass'y Removal

3-1-13. PCB Locations

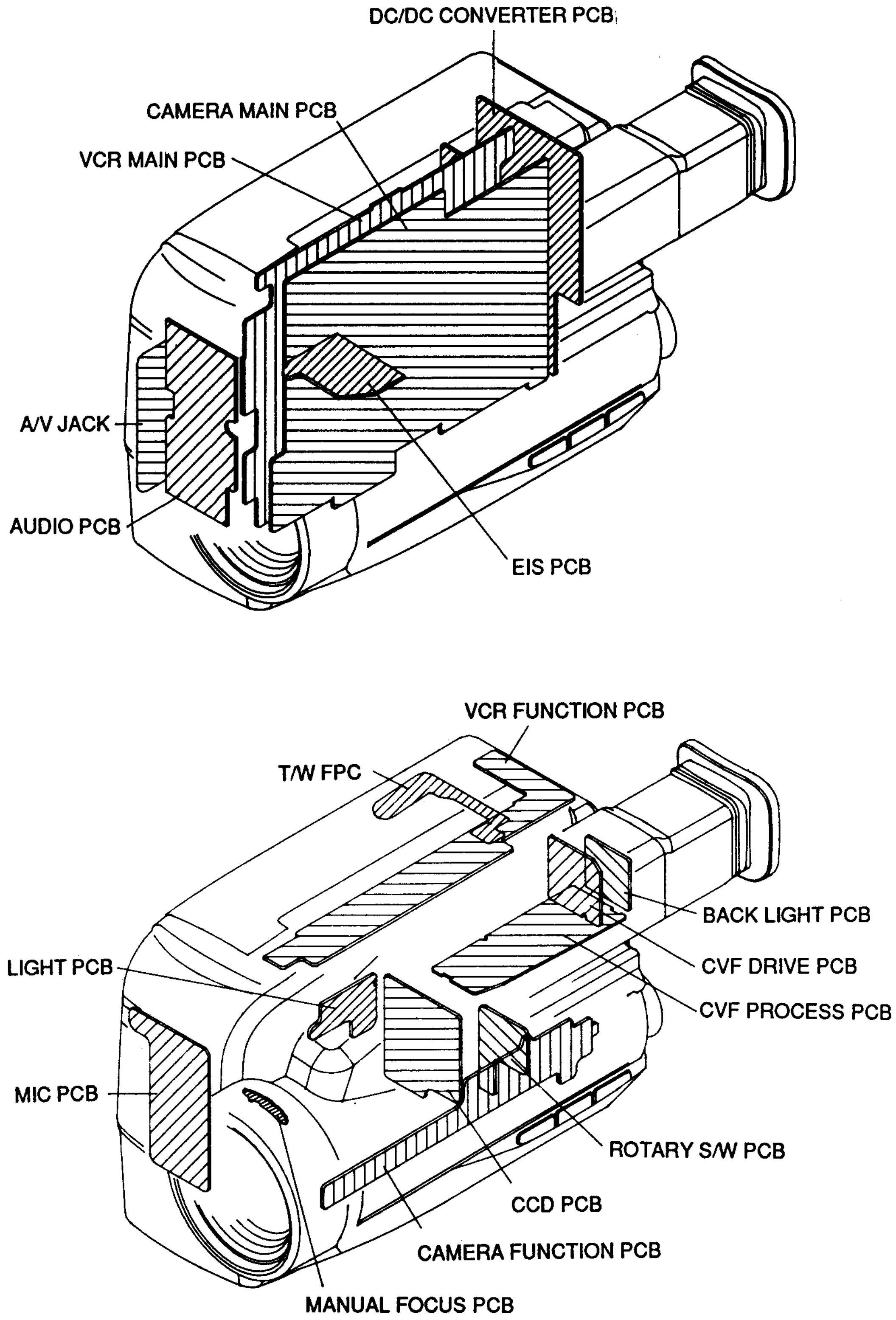

DC/DC CONVERTER PCB
CAMERA MAIN PCB
VCR MAIN PCB
A/V JACK
AUDIO PCB
EIS PCB
VCR FUNCTION PCB
T/W FPC
BACK LIGHT PCB
CVF DRIVE PCB
LIGHT PCB
CVF PROCESS PCB
MIC PCB
ROTARY S/W PCB
CCD PCB
CAMERA FUNCTION PCB
MANUAL FOCUS PCB

Fig. 13 PCB Locations

3-2. MECHANICAL DISASSEMBLY

3-2-1. Mechanical Parts Locations

1. Main Deck (Top View)

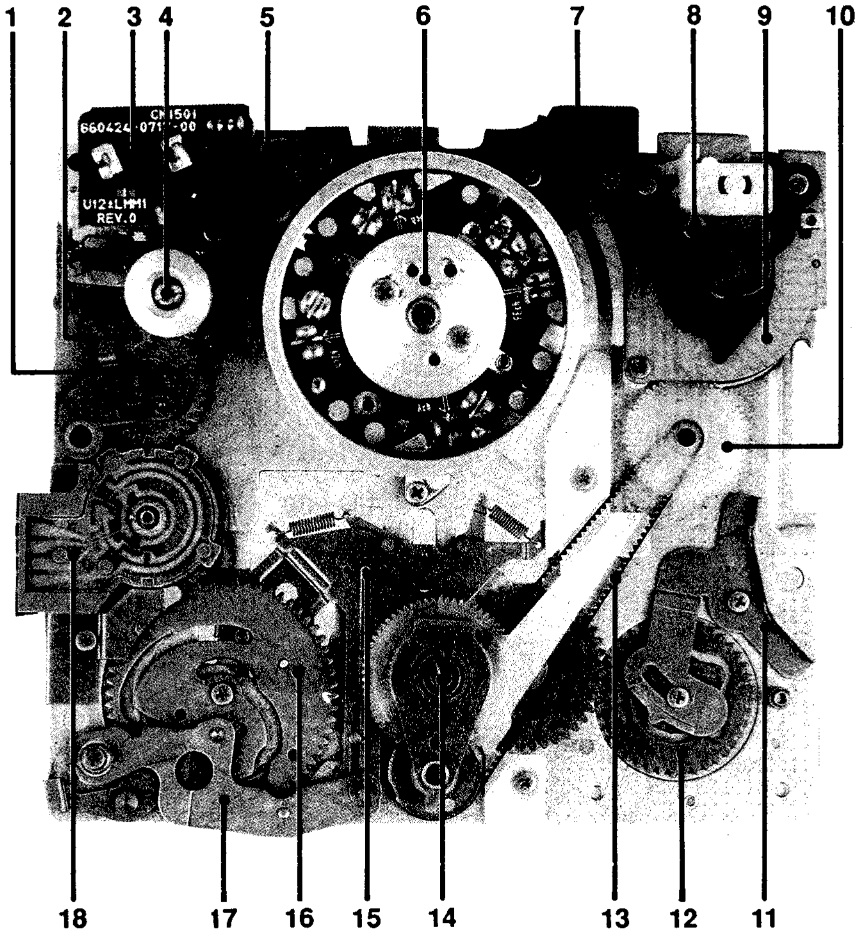


Fig. 14 Main Deck (Top View)

1. GEAR-CAM TENSION
2. GEAR-LOADING B
3. MOTOR-LOADING
4. POLE-BASE SUB ASS'Y
5. RAIL-STOPPER L
6. ASS'Y-SEMI DRUM
7. GUIDE-TAPE T
8. BASE-CAPSTAN ASS'Y
9. MOTOR CAPSTAN
10. GEAR-CAPSTAN ASS'Y
11. LEVER-CAM PINCH ASS'Y
12. GEAR-CAM PINCH
13. BELT-TIMING
14. IDLER ASS'Y
15. PLATE-SLIDER ASS'Y
16. GEAR-CAM MAIN
17. LEVER-CAM ASS'Y
18. SWITCH-MODE ASS'Y

2. Sub Deck (Top View)

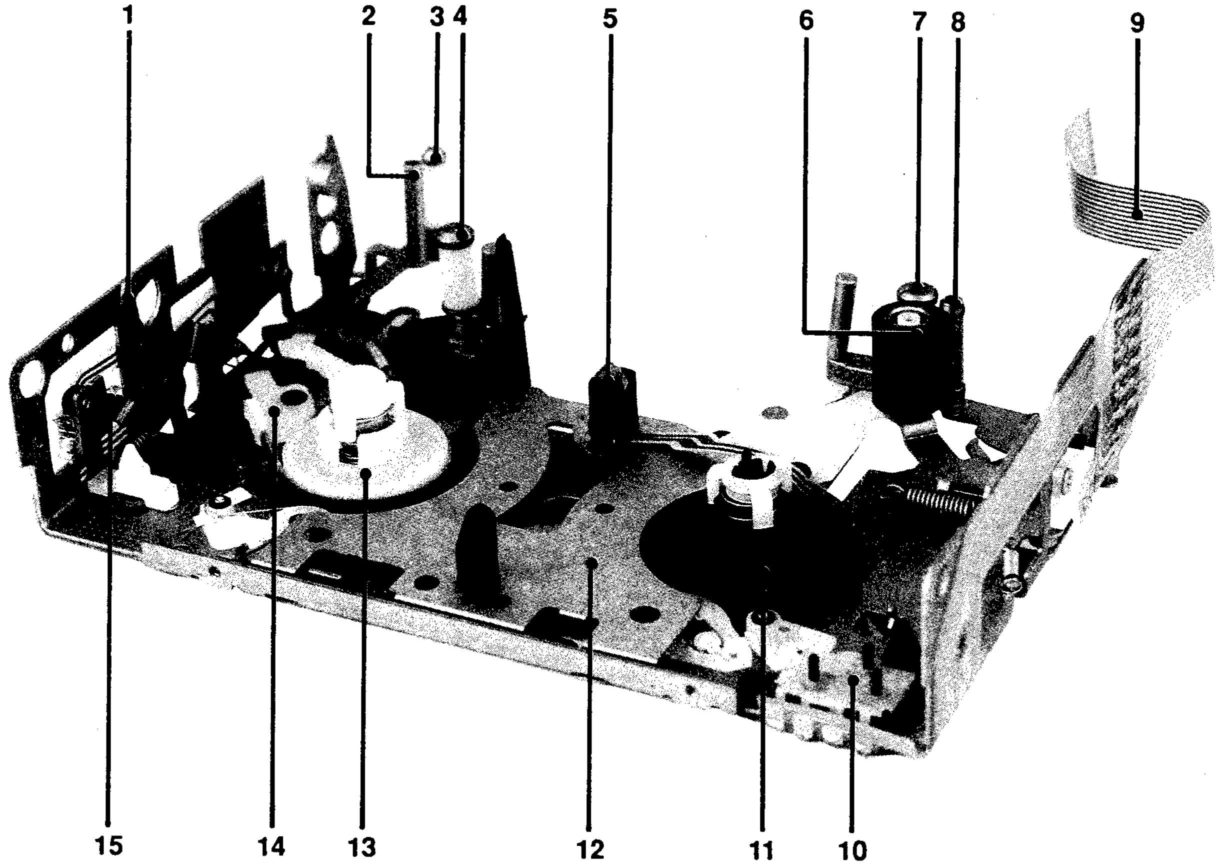


Fig. 15 Sub Deck (Top View)

1. SUB-CHASSIS
2. ARM-TENSION ASS'Y
3. LEVER-GUIDE ASS'Y
4. ARM-POLE BASE S ASS'Y
5. LED-IR
6. ARM-PINCH R ASS'Y
7. ARM-POLE BASE T ASS'Y
8. ARM-REVIEW ASS'Y
9. F.P.C CONNECTION
10. SW-DETECTOR
11. REEL-T ASS'Y
12. COVER-REEL ASS'Y
13. REEL-S ASS'Y
14. HOLDER-TENSION BAND ASS'Y
15. SW-LEAF

3. Housing Ass'y

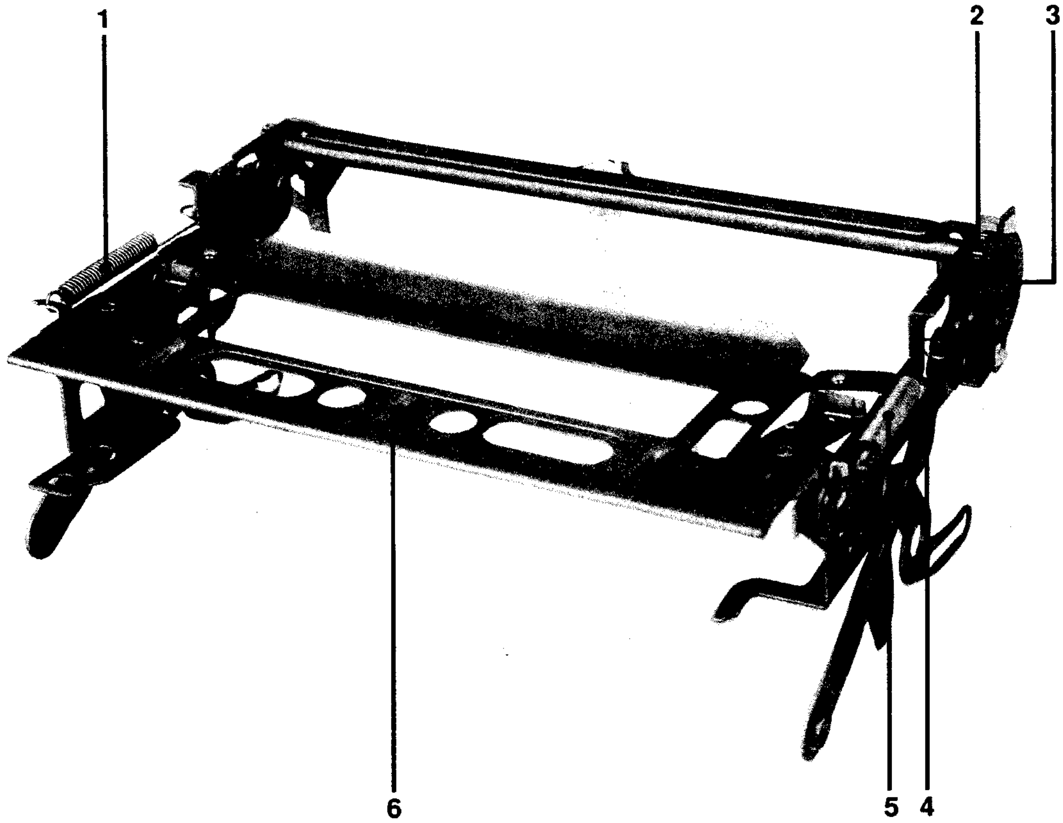


Fig. 16 Housing Ass'y

1. SPRING EJECT L
2. SHAFT-HOUSING ASS'Y
3. DAMPER-HOUSING
4. ARM-R ASS'Y
5. SPRING EJECT R
6. PLATE-HOUSING ASS'Y

3-2-2. Ready for Operation

1. Make sure Main Power S/W is turned off.
2. Connect lead connector and F.P.C to VCR Main Board.
3. Turn the Main Power S/W on.
4. Load a tape and make sure that Auto Loading is working.
5. Confirm the stop mode.
6. Check the Deck movement by pressing PLAY, FF and REW key.
7. Press the Eject (Stop) Key.

3-2-3. Deck Operation without Housing Ass'y & Tape (See Fig. 17)

1. Cover the LED assembly with ① ELECTRICAL TAPE.
2. Push the Lever Stopper ③ in the dirrection of arrow "A" in order to turn the S/W Leaf ② on. (Refer to Fig. A)
3. Turn on the test mode of the VCR Main board.
4. Follow the procedures for Ready for Operation.

Note : Push the Lever Locker ④ in the direction of arrow "A" in order to eject the tape compulsorily under the condition of Housing loaded.

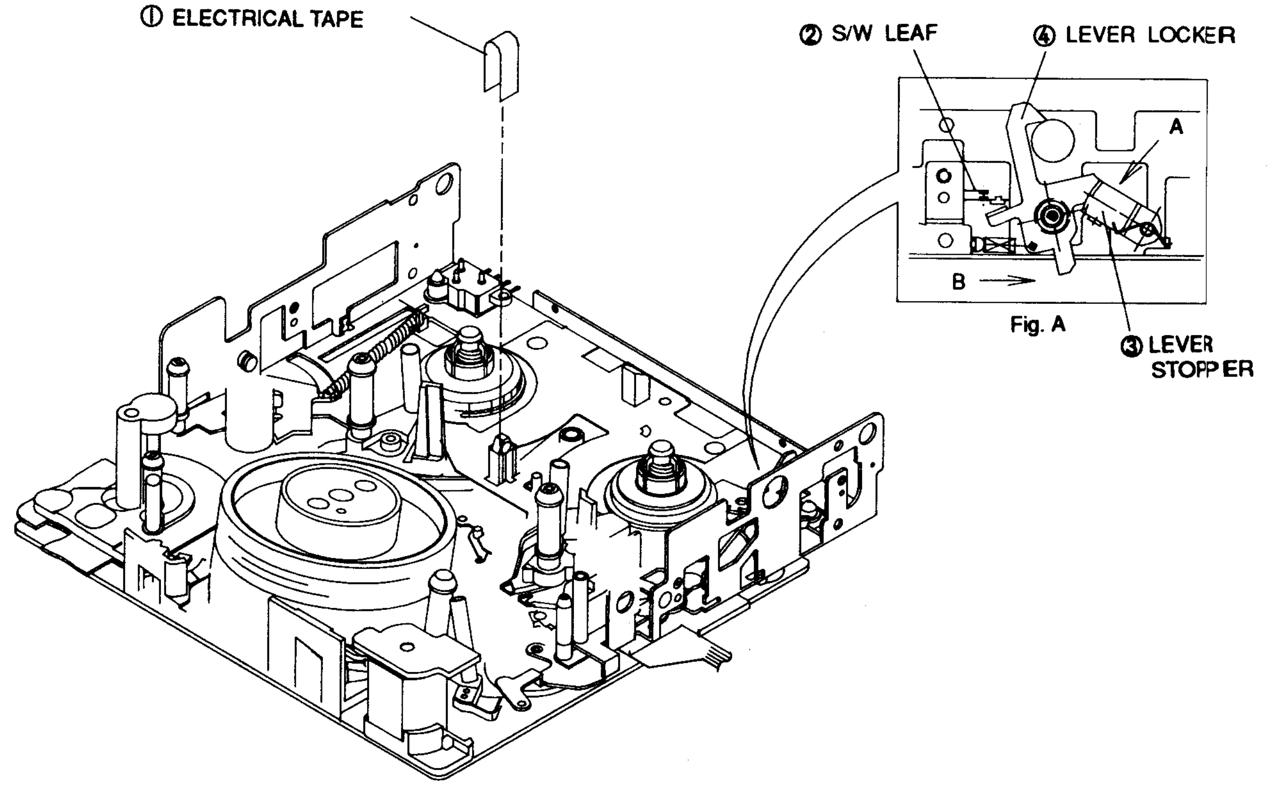


Fig. 17

3-2-4. Housing Ass'y

1. Removal

Note : Be sure to remove the Housing Ass'y when Housing is ejected.

1) Remove 4 screws ① then remove the Cover Back ②.
2) Remove 2 Pins Hinges ③ and then remove the Lever Slide ④ as described in Fig. A.

2. Reassembly

1) Mount the Lever Slide ④ to pin as described in Fig. A.
2) Mount the Pin Hinge ③ as described in Fig. B, to the groove by pushing the Housing ⑤ in the direction of arrow A.
3) Assemble the Cover Back ② then fasten 4 screws ①.

Note : After assembling, make sure Housing Ass'y is performing properly by installing Housing.

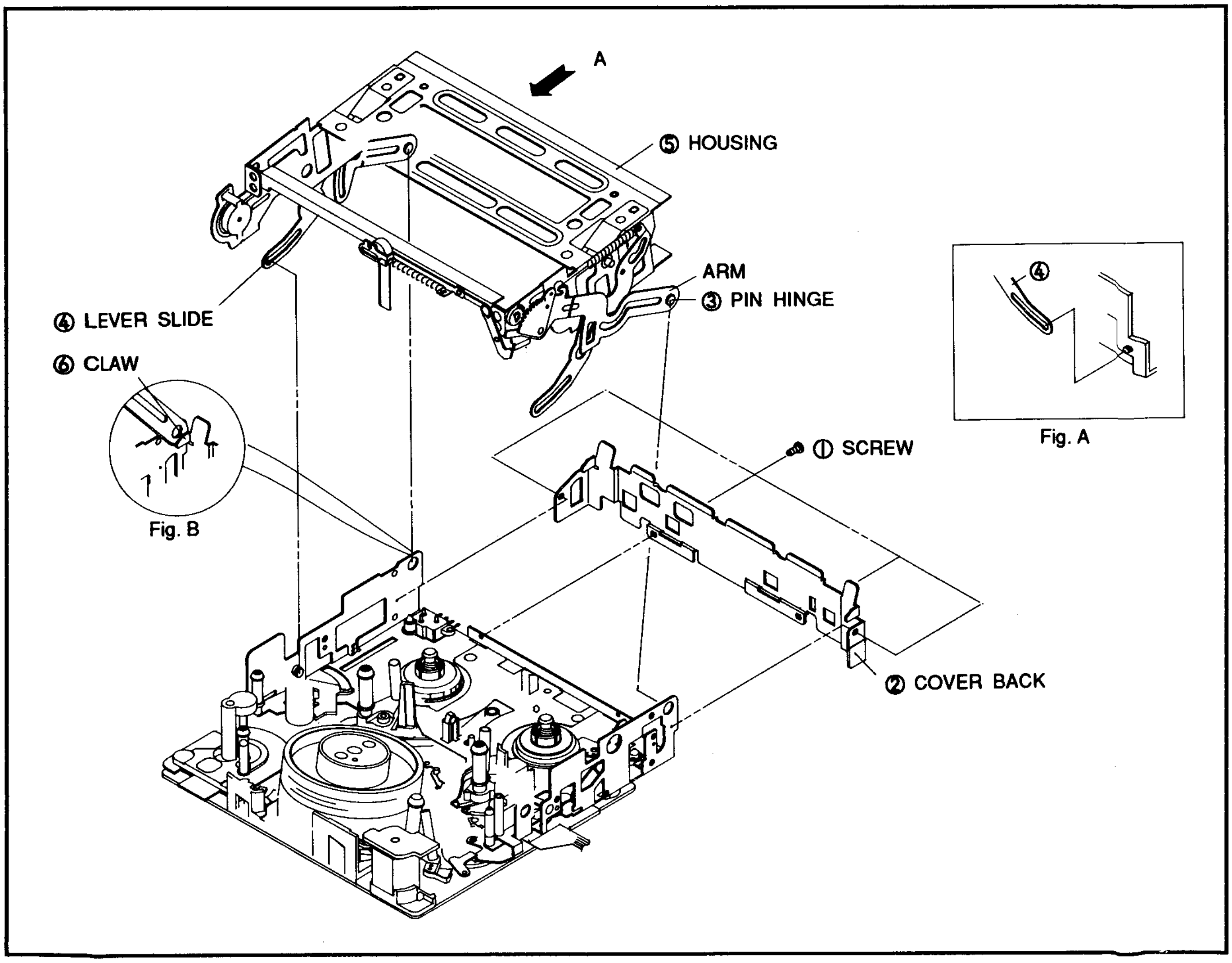

A
⑤ HOUSING
ARM
③ PIN HINGE
④ LEVER SLIDE
⑥ CLAW
Fig. B
④
Fig. A
① SCREW
② COVER BACK

Fig. 18

3-2-5. Drum Ass'y

1. Removal

> **Note** : Take extreme care when removing the Drum Ass'y ⑩.
> Do not touch the Head Tip ⑪ during servicing.

1) Remove the Housing Ass'y. (Refer to section 3-2-4)
2) Remove 1 screw ①, then remove the Guide Tape T ②.
3) Remove 2 screws ④, ⑤, then remove the Base Drum ⑥.
4) Remove 1 screw ⑦, then remove the Earth Brush ⑧.
5) Remove 2 screws ⑨, then remove the Drum Ass'y ⑩.

2. Reassembly

1) Mount the Drum Ass'y ⑩ to the Boss ⑫ of Base Drum ⑥ and secure 2 screws ⑨.
2) Mount the Earth Brush ⑧ then secure 1 screw ⑦.
3) Mount the Base Drum ⑥ to the Main Deck and then secure 2 screws ④, ⑤.
4) Mount the Guide Tape T ② and then secure 1 screw ①.

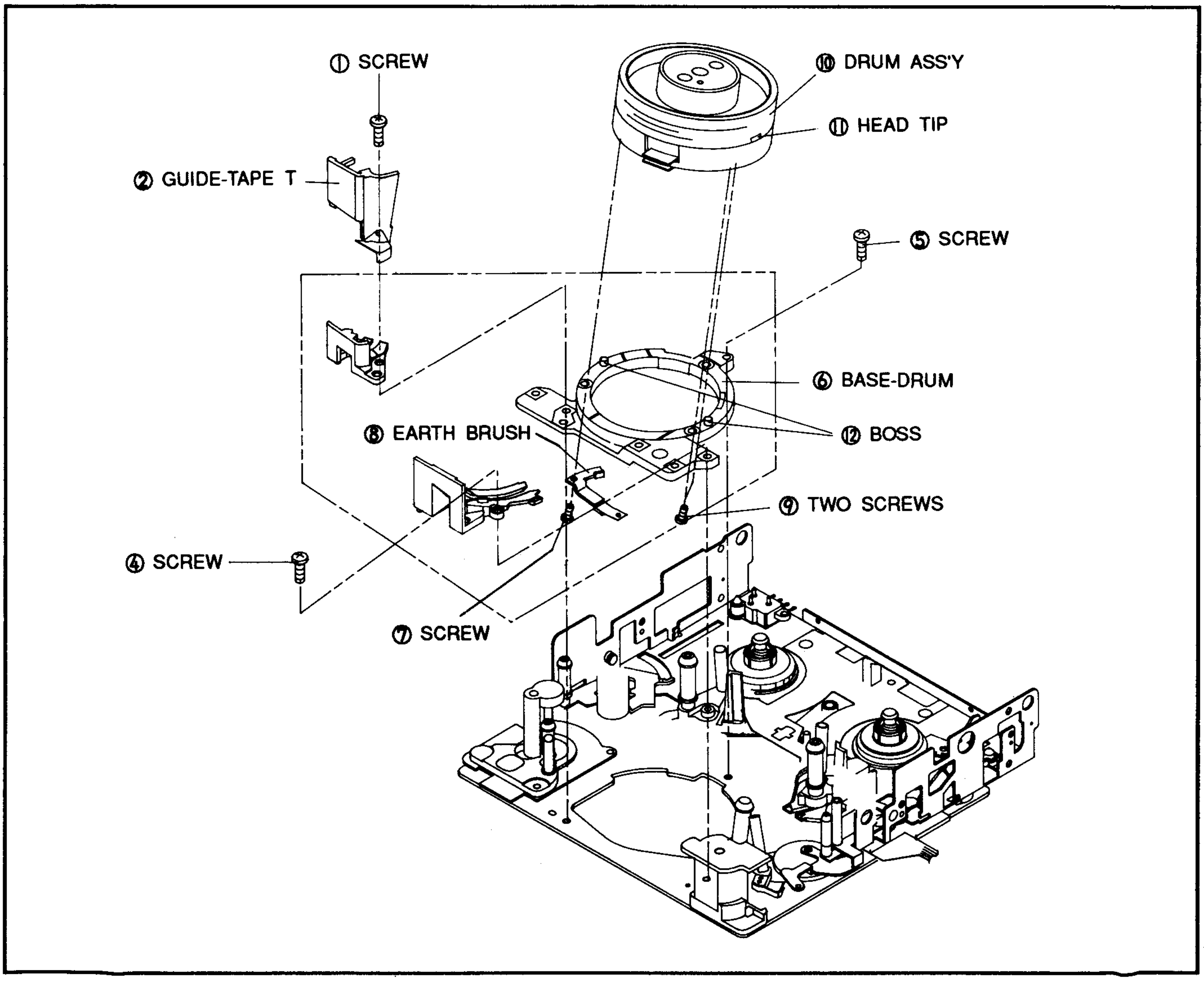

① SCREW
⑩ DRUM ASS'Y
⑪ HEAD TIP
② GUIDE-TAPE T
⑤ SCREW
⑥ BASE-DRUM
⑧ EARTH BRUSH
⑫ BOSS
⑨ TWO SCREWS
④ SCREW
⑦ SCREW

Fig.19

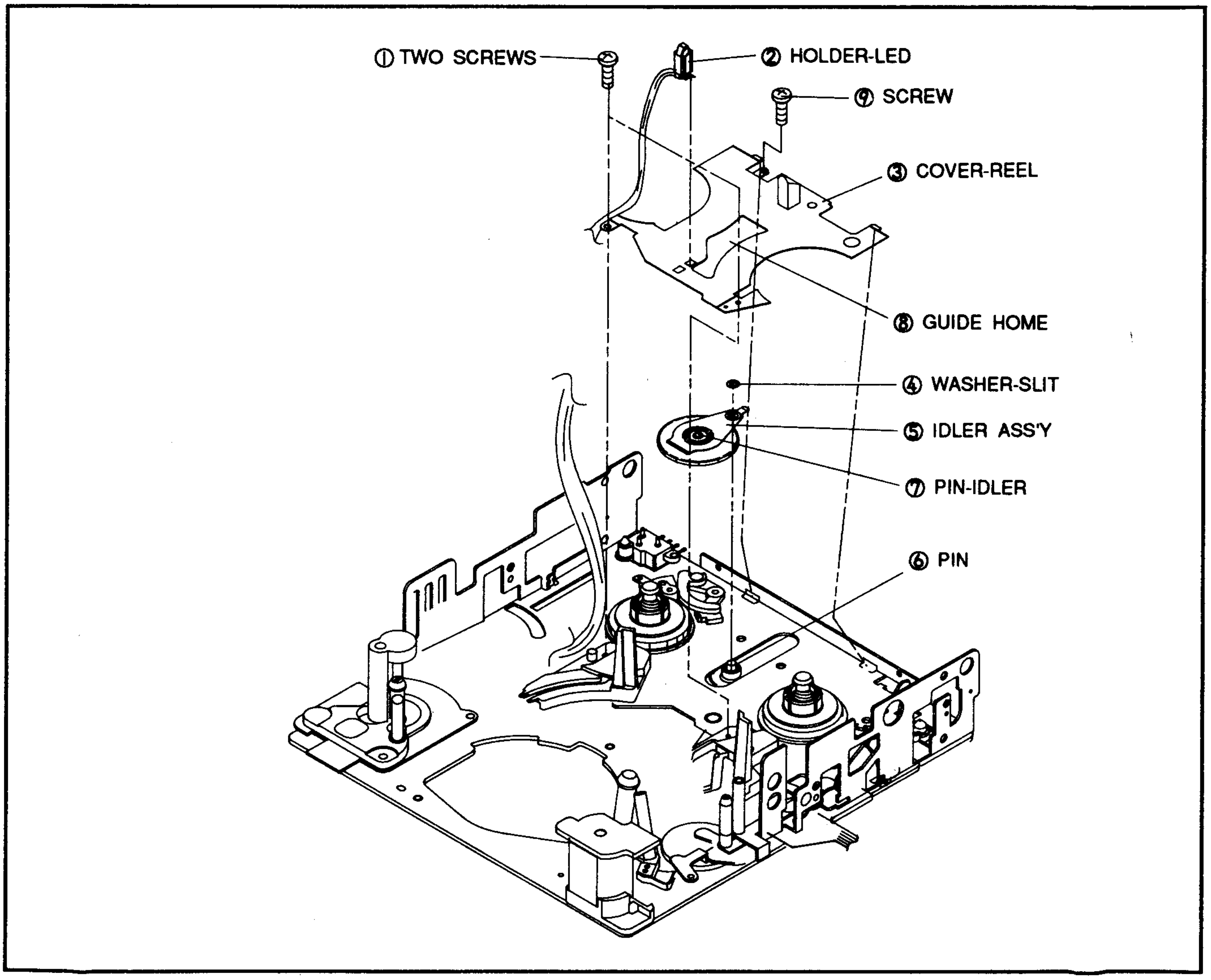
3-2-6. Idler Ass'y

1. Removal

1) Remove 2 screws ① and 1 screw ⑨ and then remove the Cover Reel ③ from the Deck.
2) Take out the Holder LED ② from the Cover Reel ③.
3) Remove the Washer Slit ④ from Idler Ass'y ⑤ and then remove the Idler Ass'y ⑤ from the Pin ⑥.

2. Reassembly

1) Fit the Idler Ass'y ⑤ into the Pin ⑥, and then install it with the Washer Slit ④.
2) Mount the Cover Reel ③ to the Deck Ass'y.
3) At that time, place the Pin Idler ⑦ into the Guide Home ⑧ of the Cover Reel ③.
4) Mount the Holder LED ② to the Cover Reel ③.
5) Fasten 2 screws ① and 1 screw ⑨.



① TWO SCREWS
② HOLDER-LED
⑨ SCREW
③ COVER-REEL
⑧ GUIDE HOME
④ WASHER-SLIT
⑤ IDLER ASS'Y
⑦ PIN-IDLER
⑥ PIN

Fig. 20

3-2-7. Sub Deck Ass'y Removal from the Main Deck Ass'y

1. Removal

Note :
1) When disassembling, take care not to damage the other parts.
2) Always remove the Sub Deck Ass'y when Deck Ass'y is in eject mode.

1) To remove Sub Deck Ass'y, remove Idler Ass'y first. (Refer to 3-2-6)
2) Take out the Holder F.P.C ① from the Main Deck Ass'y ③.
3) Remove 3 screws ②.
4) Remove the Sub Deck Ass'y ④ from the Main Deck Ass'y ③.

2. Reassembly

1) Align main base hole with Gear-cam main holes as shown in the Fig. A. (Refer to install point)
2) Push the Pole Base T ⑧ and the Pole Base S ⑨ in the direction of arrows "C", "D".
3) Position out the Slider L.G ⑥ toward "A", and then push the Lever Eject ⑦ toward "B".
4) Put in the Stud Slide R ⑩ to the slider area of Main Base as described in Fig. B.
   Insert the pin Lever Cam ⑪ into the Sub Deck Cam ⑮.
5) Fit the Slider L.G ⑥ to the Bush screw of the Main Deck and then confirm whether the Plate Slide ⑭, and the Arm Loading are fixed correctly as shown in the Fig C.
6) Install the Sub Deck with 3 screws ②.
7) Install the Holder F.P.C ① to the Main Deck Ass'y ③.

Note : After assembling the Sub-Deck Ass'y, make sure that the Sub-Deck Ass'y is performing correctly with power supply 3V to loading Motor changing voltage direction.

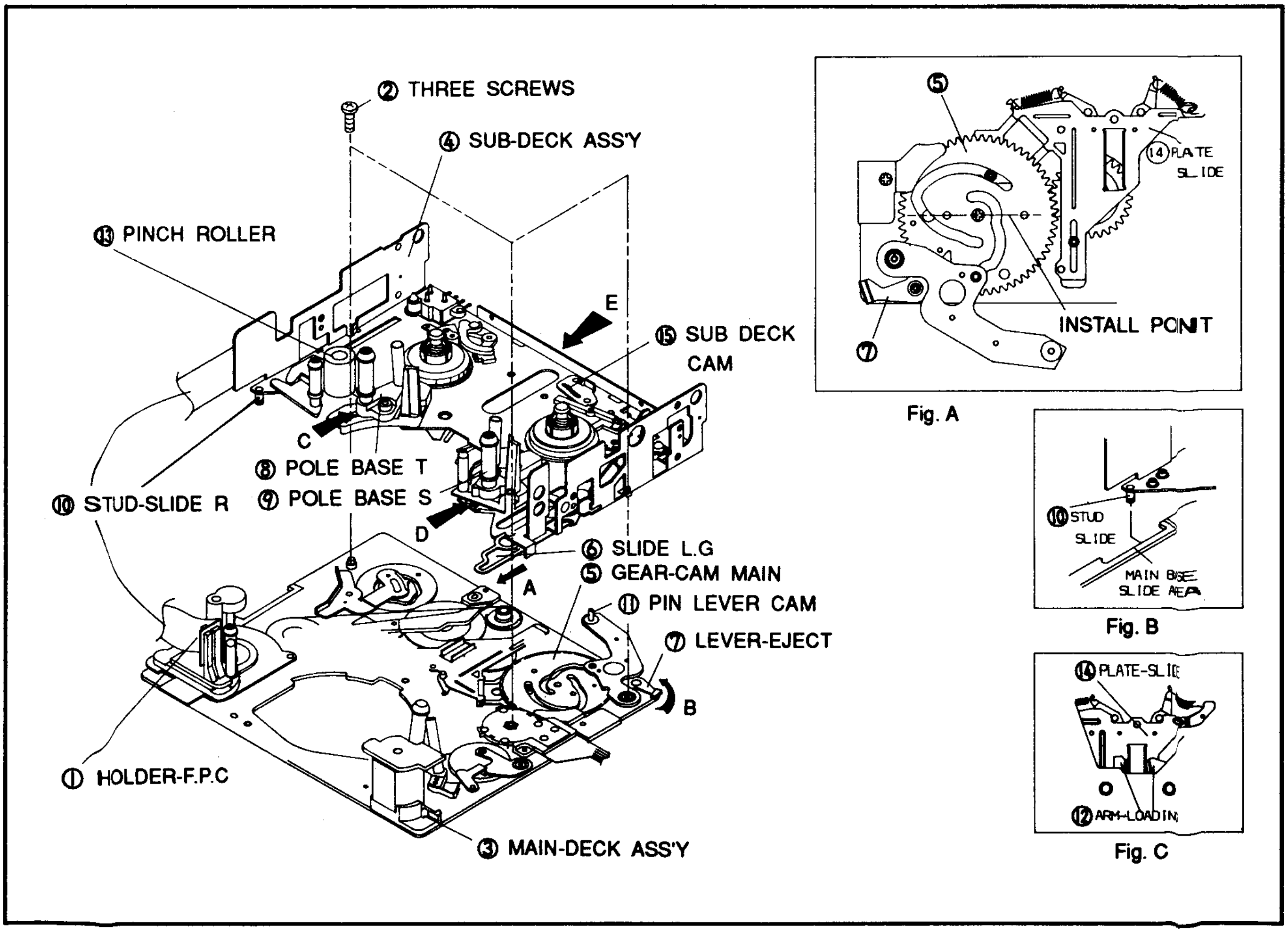

② THREE SCREWS
④ SUB-DECK ASS'Y
⑬ PINCH ROLLER
E
⑮ SUB DECK CAM
C
⑧ POLE BASE T
⑩ STUD-SLIDE R
⑨ POLE BASE S
D
⑥ SLIDE L.G
⑤ GEAR-CAM MAIN
A
⑪ PIN LEVER CAM
⑦ LEVER-EJECT
B
① HOLDER-F.P.C
③ MAIN-DECK ASS'Y
⑤
⑭ PLATE SLIDE
INSTALL PONIT
⑦
⑩ STUD SLIDE
MAIN BASE SLIDE AREA
⑭ PLATE-SLI
⑫ ARM-LOADIN

Fig. A

Fig. B

Fig. C

Fig. 21

3-2-8. Arm Pole Base S, Arm Pole Base T

1. Removal

1) Take out the Pole Base S ① from Rail S ③ in the direction of arrow "B", and remove the Arm Loading S ⑤ from Sub Deck as described in Fig. A.
2) Take out the Pole Base T ② from Rail T ④ in the direction of arrow "A", and remove the Arm Loading T ⑥ from Sub Deck as described in Fig. A.

2. Reassembly

1) Insert the Arm Loading S to the Sub Deck, and turn in the direction of arrow "C", and then put in the 2 pins of the Pole Base S ① to the Rail S ③ in the opposite direction of arrow "B".
2) Insert the Arm Loading T to the Sub Deck (Refer to Fig. A and turn in the direction of arrow "D", and then put in the 2 pins of the Pole Base T ② to the Rail T ④ in the opposite direction of arrow "A".

> **Note** : When assembling, be careful not to stain the Roller and slant Pole of the Pole Base from the oil, grease, etc.

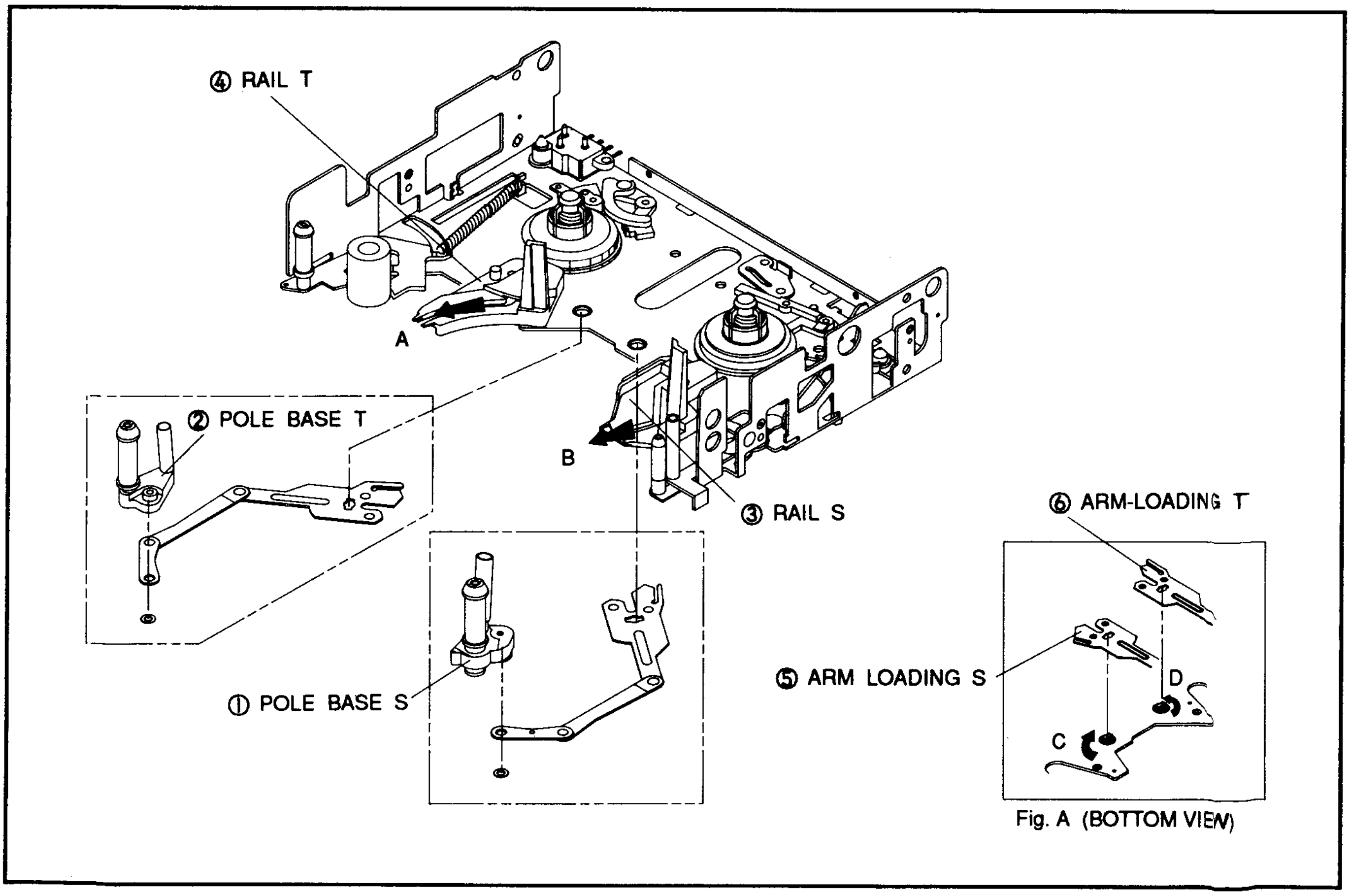


Fig. A (BOTTOM VIEW)

Fig. 22

3-2-9. Pinch Roller Ass'y & Arm Review Ass'y

1. Removal

1) Remove the 2 Washer Slit ①, and then remove the Arm Review Ass'y ② and Spring Review Arm ③.
2) Take out the Spring Lever Pinch ⑤ from Claw ④, then remove the Arm Pinch Roller Ass'y ⑥.

2. Reassembly

1) Put the Arm Pinch Roller Ass'y ⑥ on the bush, and attach the Spring Lever Pinch ⑤ on the Claw ④.
2) Install it with the Washer Slit ①.
3) Put the Spring Review Arm ③ in the bush, and then hook it to the Spring Hanger Area ⑧ of the Arm Review Ass'y ② and to the notch of Stud-Slide ⑦.
4) Install the Arm Review Ass'y ② with the Washer Slit ①.

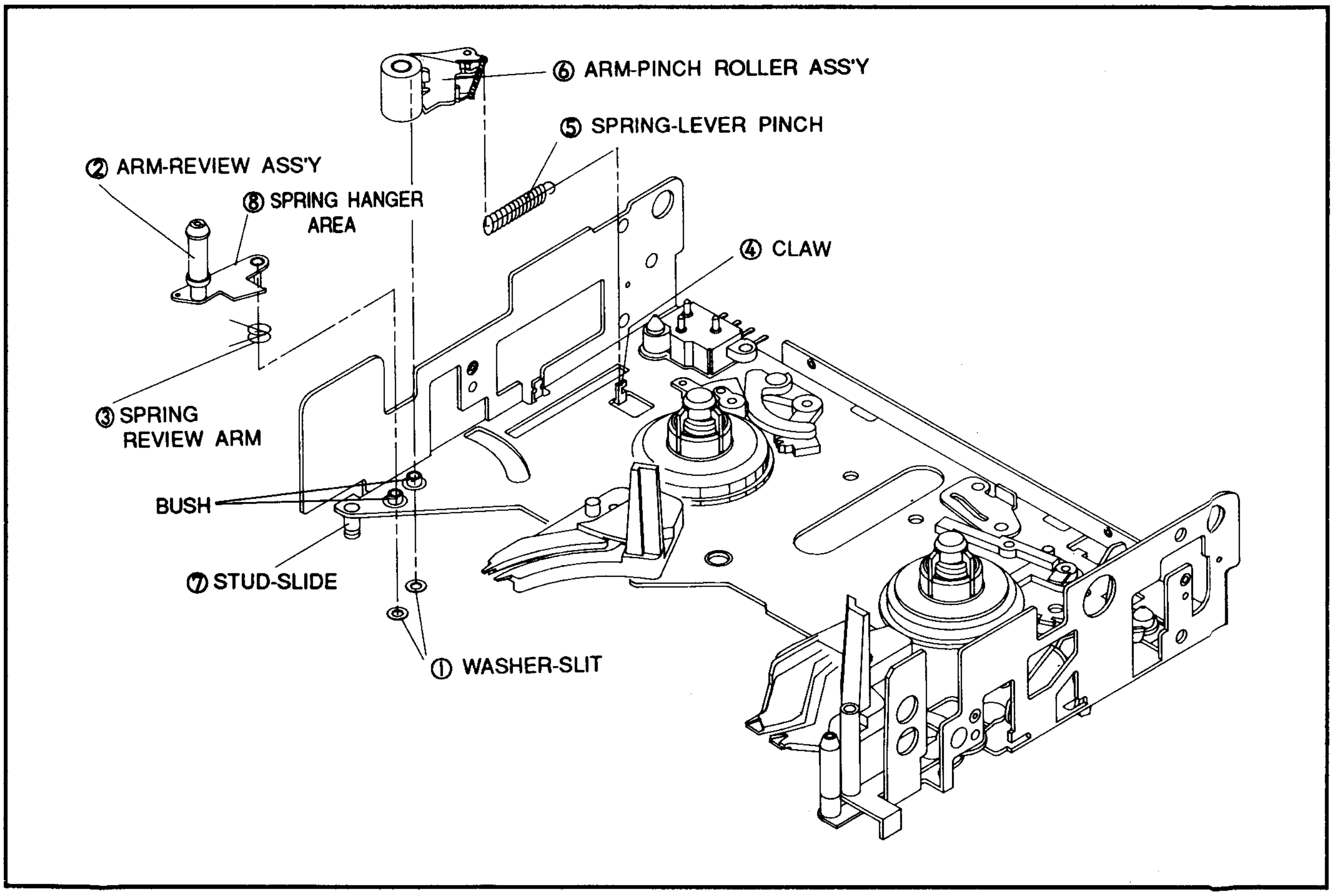

⑥ ARM-PINCH ROLLER ASS'Y
⑤ SPRING-LEVER PINCH
② ARM-REVIEW ASS'Y
⑧ SPRING HANGER AREA
④ CLAW
③ SPRING REVIEW ARM
BUSH
⑦ STUD-SLIDE
① WASHER-SLIT

Fig. 23

3-2-10. Arm Tension Ass'y, Lever Guide Ass'y

1. Removal

1) Remove the Washer Slit ① and then remove the screw ③.
2) Remove the spring of the Arm Tension Ass'y from the Claw ⑧, and then remove the Arm Tension Ass'y ⑤ from the Bush ②.
3) Release the Hook ⑬ of the Arm Tension Ass'y from the Hole ⑫, and then remove the Ass'y Band Tension.
4) Remove the Lever Guide Ass'y ⑥, and then remove the Slide L.G ⑦ from the Sub Deck Ass'y.

Note : Be careful not to damage and stain the Arm Tension's Pole part and Lever Guide Assy's Roller part with oil.

2. Reassembly

1) Mount the Slide L.G ⑦ in order to position the Bush into the Slit ⑨ of the Slide L.G ⑦.
2) Mount the Lever Guide Ass'y ⑥ to Bush ②, at that time place the Pin Lever Guide ⑪ into the Slit ⑩.
3) Mount the Arm Tension Assy's ⑤ shaft to the Lever Guide Assy ⑥ bush, and then attach the spring of the Arm Tension Ass'y ⑤ on the Claw ⑧.
4) Put in the Hook ⑬ of the Ass'y Band Tension ④ to the Hole ⑫, and then Mount the Ass'y Band Tension ④ so that its Dowel ⑮ aligns with the Slit ⑯ of the Sub Deck.
5) Install the Ass'y Band Tension ④ with the screw ③.
6) Install the Arm Tension Ass'y ⑤ with the Washer Slit ①.

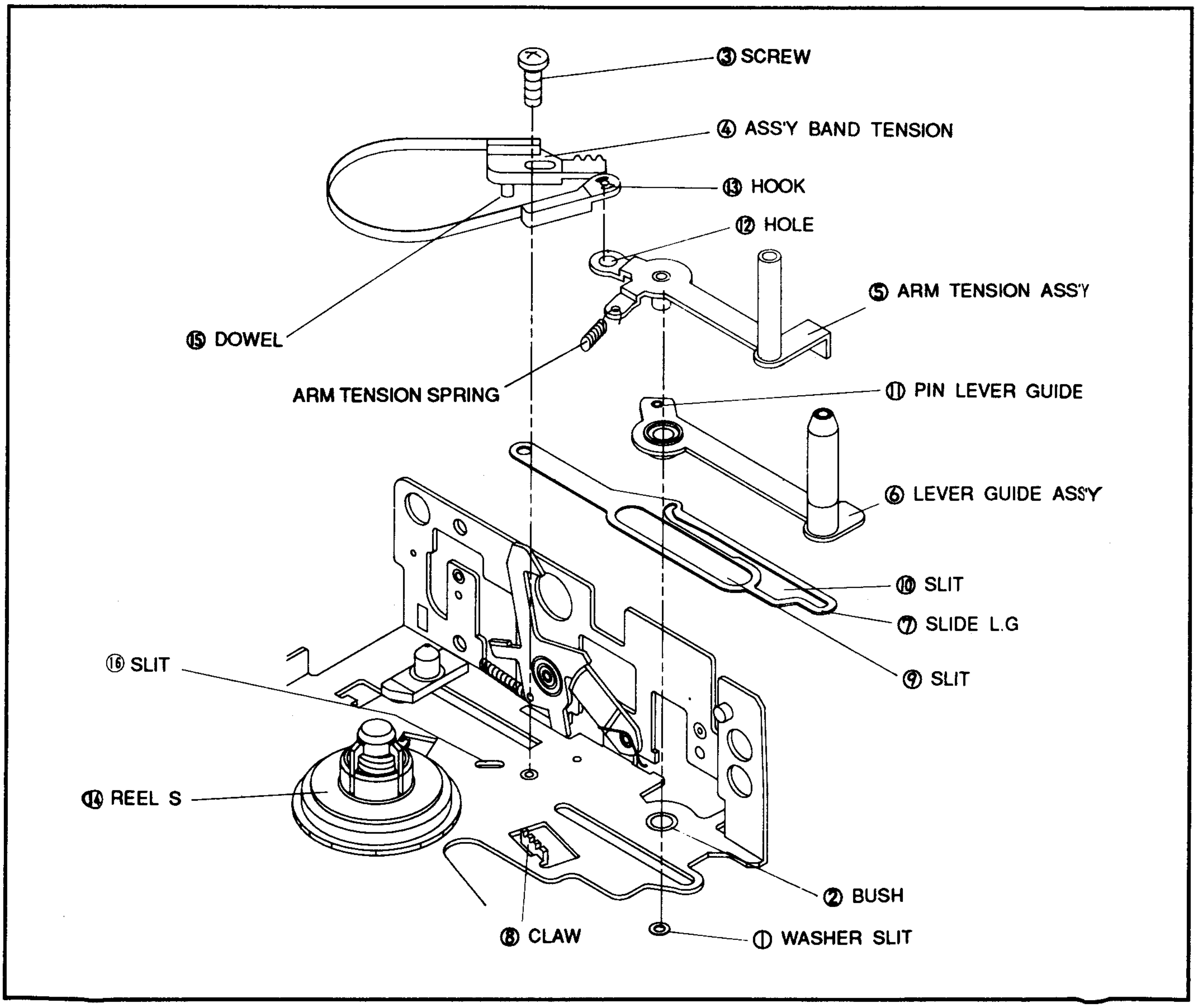

③ SCREW
④ ASS'Y BAND TENSION
⑬ HOOK
⑫ HOLE
⑤ ARM TENSION ASS'Y
⑮ DOWEL
ARM TENSION SPRING
⑪ PIN LEVER GUIDE
⑥ LEVER GUIDE ASS'Y
⑩ SLIT
⑦ SLIDE L.G
⑯ SLIT
⑨ SLIT
⑭ REEL S
② BUSH
⑧ CLAW
① WASHER SLIT

Fig. 24

3-2-11. Rail Guide S, Rail Guide T, Locker-Sub Chassis

1. Removal

1) Remove the Arm Pole Base S, Arm Pole Base T. (Refer to Fig. 22)
2) Remove the screw ①, then remove the Rail Guide T ②.
3) Remove the screw ③, then remove the Rail Guide S ④.
4) Remove the 2 screws ⑤, and then remove the Locker Sub Chassis ⑥.

2. Reassembly

1) Install in reverse order.

Note :
1) After installing the Rail Guide S ④ and the Rail Guide T ②, make sure that projection boss on the bottom side and the hole are aligned correctly.
2) Be sure to use the standard screws.

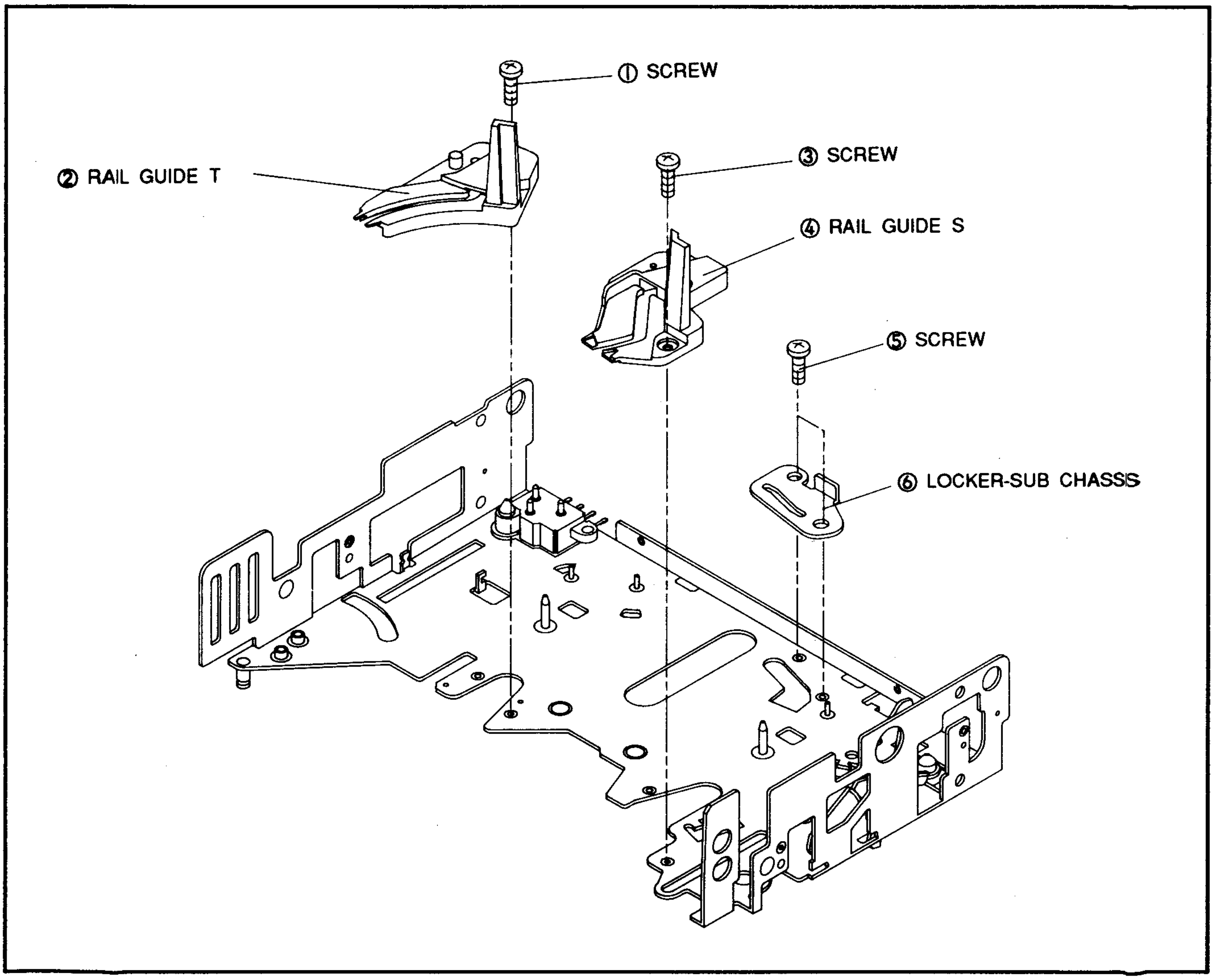

① SCREW
② RAIL GUIDE T
③ SCREW
④ RAIL GUIDE S
⑤ SCREW
⑥ LOCKER-SUB CHASSIS

Fig. 25

3-2-12. Reel S, T Ass'y, Arm Clutch, Lever Brake S, T

1. Removal

1) Remove the Ass'y Tension Band. (Refer to Fig. 24)
2) Remove the Washer Slit ①, and then remove the Lever Brake S ② and Spring Lever Brake S ③.
3) Remove the Washer Slit ④, and Spring Arm Brake S ⑤, and then remove the Arm Brake S ⑥.
4) Lift up the Reel S ⑦, and then take out the Washer Plane ⑧.
5) Remove the Washer Slit ⑩, and then remove the Lever Brake T ⑪.
6) Remove the Washer Slit ⑫, and then remove the Ass'y Arm Clutch ⑬.
7) Lift up the Reel T ⑨.

2. Reassembly

1) Mount the Reel T ⑨.
2) Put the Ass'y Arm Clutch ⑬ into the slit Home ⑭ of the Sub Deck Ass'y, and then install it with the Washer Slit ⑫.
3) Put the Lever Brake T ⑪ into the Slit Home ⑮ of the Sub Deck Ass'y, and then install it with the Washer Slit ⑩.
4) Put in the Washer Plane ⑧ into shaft, and then mount the Reel S ⑦ to shaft.
5) Put in the Arm Brake S ⑥, and install the Spring Arm Brake S ⑤ (Refer to Fig. A), and then install it with the Washer Slit ④.
6) Put in the Spring Lever Brake S ③, and install the Lever Brake S ② (Refer to Fig. A), and then install the Washer Slit ①.

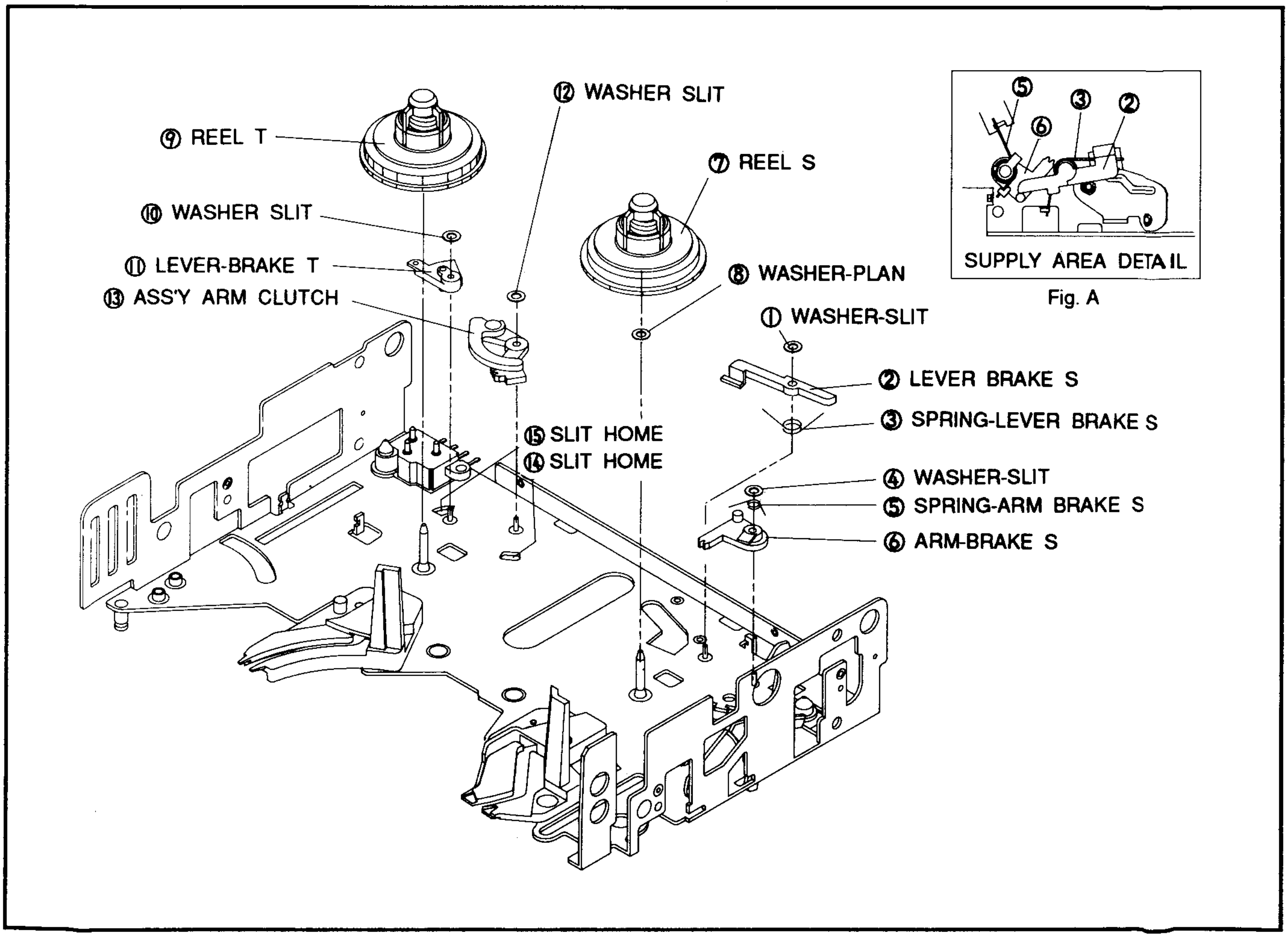

⑫ WASHER SLIT
⑨ REEL T
⑦ REEL S
⑩ WASHER SLIT
⑪ LEVER-BRAKE T
⑧ WASHER-PLAN
⑬ ASS'Y ARM CLUTCH
① WASHER-SLIT
② LEVER BRAKE S
③ SPRING-LEVER BRAKE S
⑮ SLIT HOME
⑭ SLIT HOME
④ WASHER-SLIT
⑤ SPRING-ARM BRAKE S
⑥ ARM-BRAKE S
⑤
⑥
③
②
SUPPLY AREA DETAIL
Fig. A

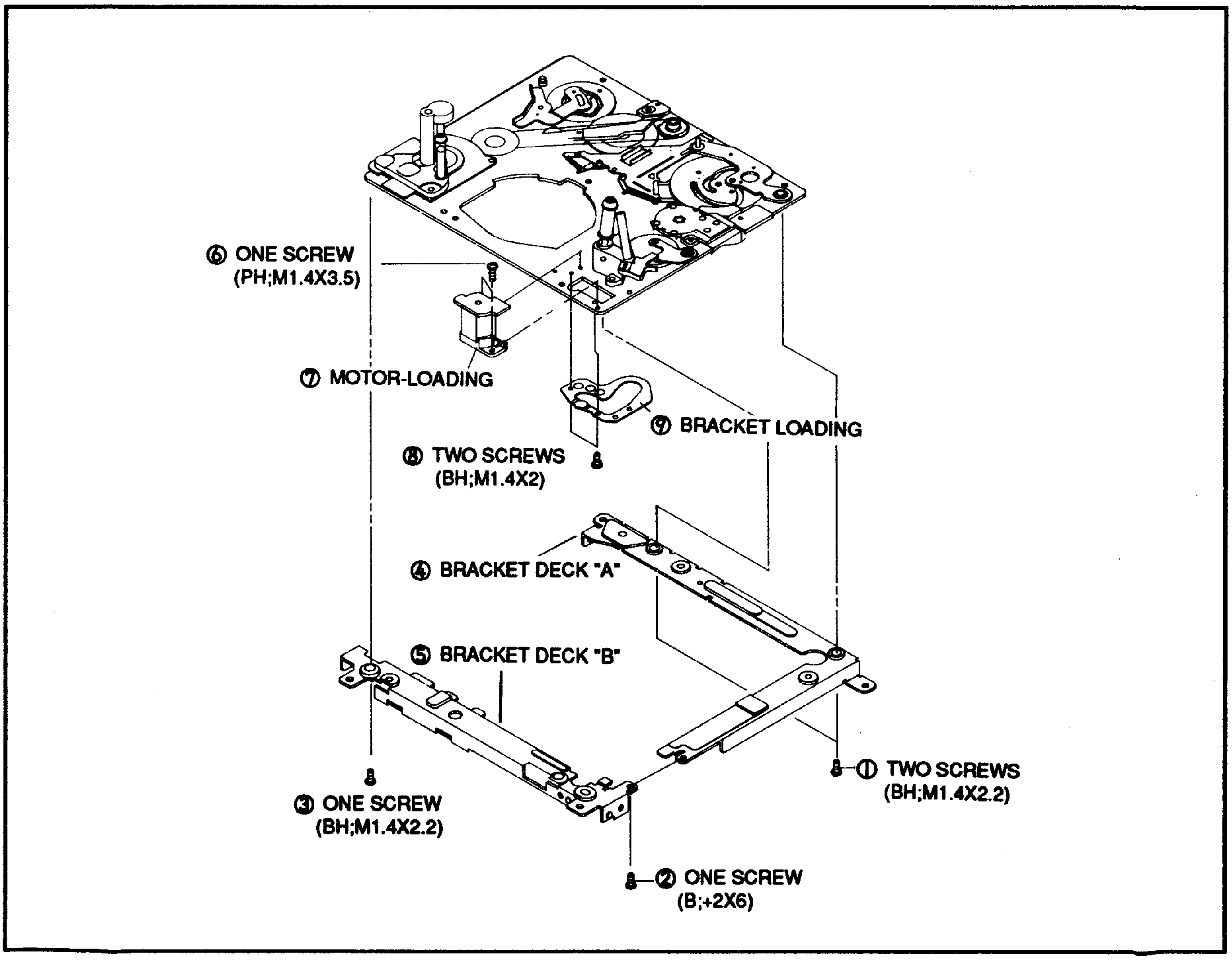
Fig. 26

3-2-13. Loading Motor

1. Removal

2. Reassembly : Install in reverse order.

1) Remove 4 screws ①, ②, ③, then remove the Bracket Deck "A" and "B" ④, ⑤.
2) Remove the 1 screw ⑥, then remove the Loading Motor ⑦.
3) Remove the 2 screws ⑧, then remove the Bracket loading ⑨.



⑥ ONE SCREW (PH;M1.4X3.5)
⑦ MOTOR-LOADING
⑨ BRACKET LOADING
⑧ TWO SCREWS (BH;M1.4X2)
④ BRACKET DECK "A"
⑤ BRACKET DECK "B"
① TWO SCREWS (BH;M1.4X2.2)
③ ONE SCREW (BH;M1.4X2.2)
② ONE SCREW (B;+2X6)

Fig. 27

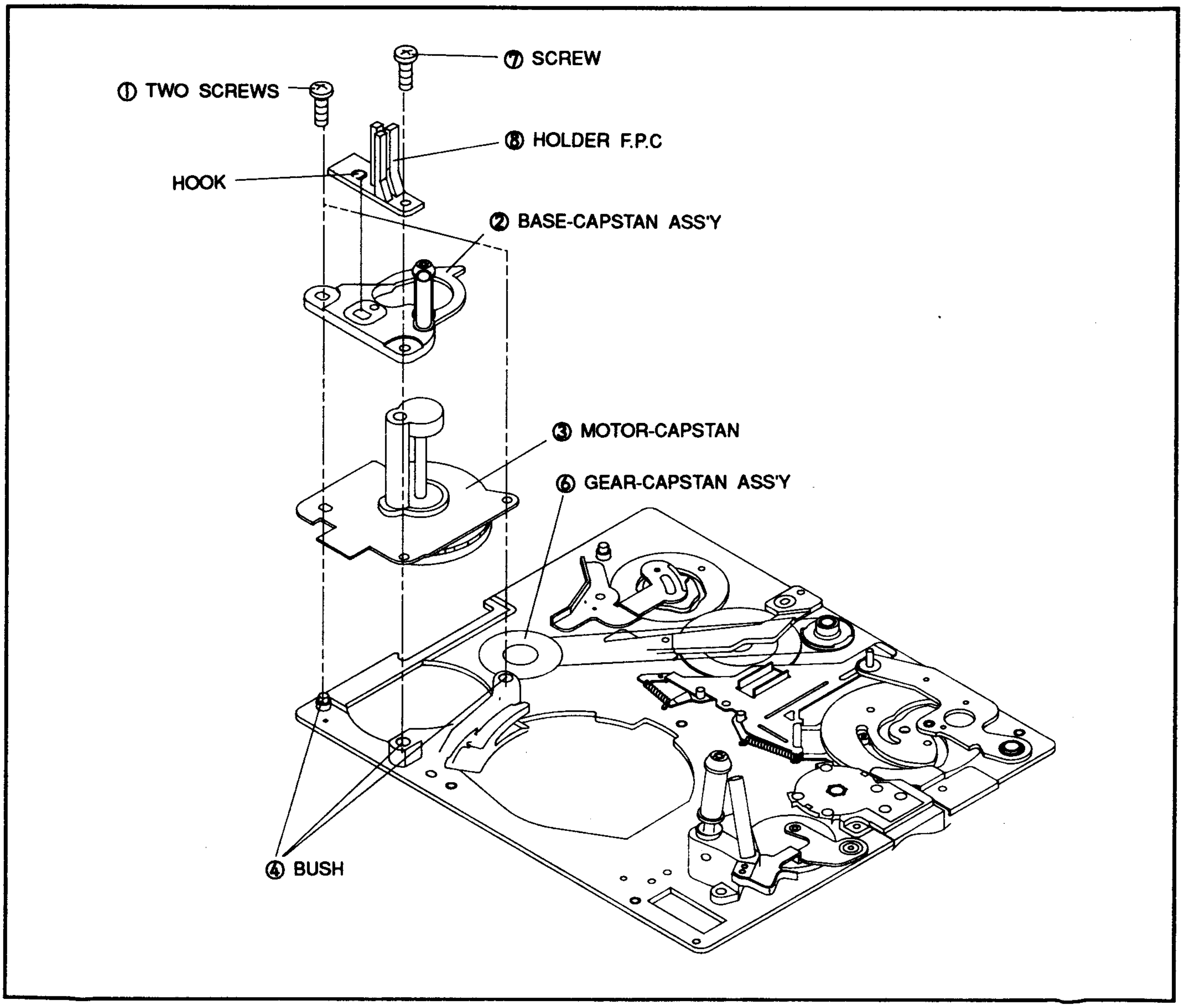
3-2-14. Motor Capstan, Base Capstan Ass'y

1. Removal

1) Remove the 2 screws ① and the 1 screw ⑦.
2) Remove the Base Capstan Ass'y ② from 2 Bush ④., then remove Holder F.P.C ⑧ by releasing hook.
3) Remove the Motor Capstan ③ from the 3 Bush ④.

2. Reassembly : Install in reverse order.

Note : When assembling, make sure that the gears of Motor Capstan ③ and the gears of Gear Capstan Ass'y ⑥ are matched correctly.



⑦ SCREW
① TWO SCREWS
⑧ HOLDER F.P.C
HOOK
② BASE-CAPSTAN ASS'Y
③ MOTOR-CAPSTAN
⑥ GEAR-CAPSTAN ASS'Y
④ BUSH

Fig. 28

3-2-15. Rail Middle R/L, Gear Capstan Ass'y, Gear Pully Ass'y, Cover Time Belt

1. Removal

1) Remove the Rail Middle R ①, then remove the screw ②, and then remove the Rail Middel L ③ from the Main Deck.
2) Remove the Gear Pully Ass'y ④ from the axle which is attached to the Belt Timing.
3) Remove the Washer Slit ⑥, then the Gear Capstan Ass'y ⑦ from the axle with the Timing Belt ⑤.
4) Remove the 2 screws ⑧, then remove the Cover Timing Belt ⑨.

2. Reassembly

1) Mount the Cover Timing Belt ⑨ on the Main Deck, then secure it with the 2 screws ⑧.
2) Fit the Gear Capstan Ass'y ⑦ to the axle, and then install the Washer Slit ⑥.
3) Attach up the Belt Timing ⑤ between the low Gears of the Gear Capstan Ass'y ⑦ and the low Gears of the Gear Pully Ass'y ④, and then fit the Gear Pully Ass'y ④ into the axle with the Belt Timing ⑤ attached. (See Fig. A)
4) Mount the Rail Middle L ③ on the Main Deck, then secure it with the 1 screw ②, and then Mount the Rail Middle R ① to the Bush.

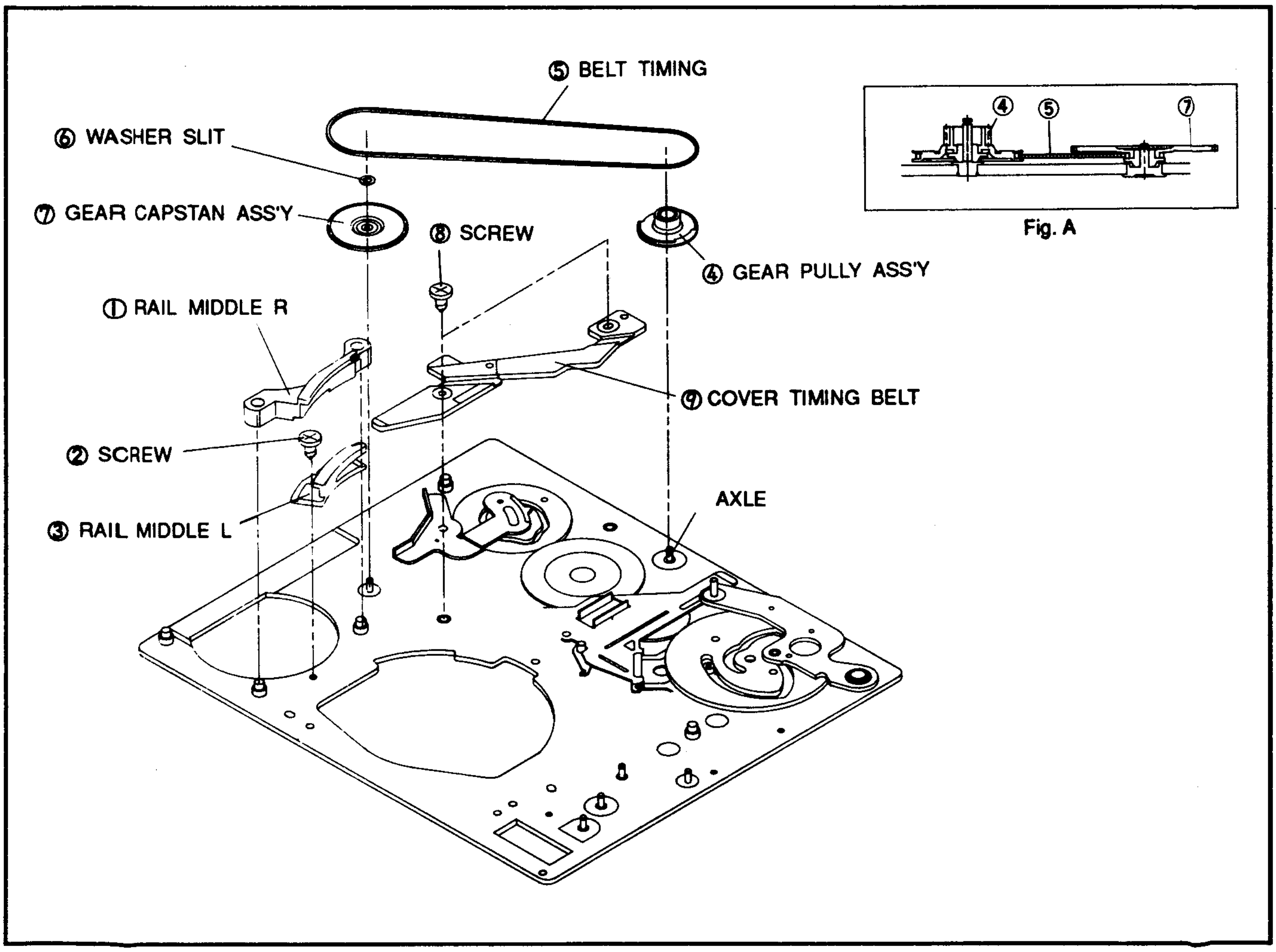

⑤ BELT TIMING
⑥ WASHER SLIT
⑦ GEAR CAPSTAN ASS'Y
⑧ SCREW
④ GEAR PULLY ASS'Y
① RAIL MIDDLE R
⑨ COVER TIMING BELT
② SCREW
AXLE
③ RAIL MIDDLE L
④ ⑤ ⑦
Fig. A

Fig. 29

3-2-16. Lever Cam Pinch Ass'y, Gear Cam Pinch

1. Removal

1) Remove the 2 screws ①, then remove the Lever Cam Pinch ② from the Main Deck.
2) Remove the Gear Cam Pinch ③ from the Main Deck.

2. Reassembly

1) Align the hole of Gear Cam Pinch ③ with the hole of Main Base. (Refer to Timing "A")
2) Insert the Lever Cam Pinch ② into the slit of Gear Cam Pinch ③ and secure it with 2 screws. (Refer to timing "B")

Note : When installing the Gears parts, refer to Fig. 33.

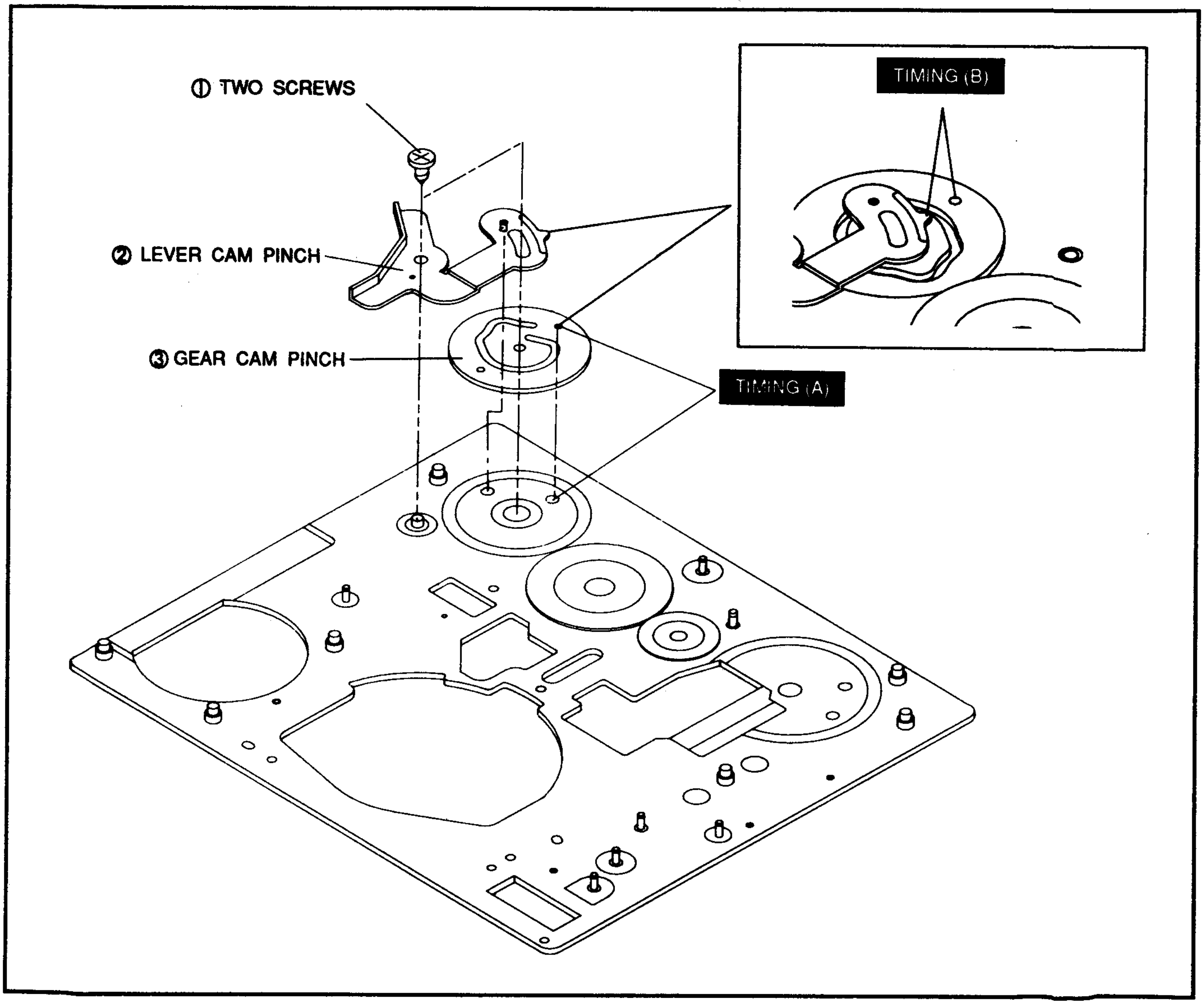

① TWO SCREWS
② LEVER CAM PINCH
③ GEAR CAM PINCH
TIMING (B)
TIMING (A)

Fig. 30

3-2-17. Pole Base Sub Ass'y, Switch Mode Ass'y, Lever Cam Tension, Gear Loading A, Gear Loading B, Gear Cam Tension

1. Removal

1) Remove 1 screw ①, then remove the Pole Base Sub Ass'y ②.
2) Remove 1 screw ③, then remove the Guide Mode Switch ④.
3) Remove 1 screw ⑤, then remove the Switch Mode Ass'y ⑥.
4) Remove the Washer Slit ⑦, then remove the Lever Cam Tension ⑧.
5) Remove the Washer Slit ⑨, then remove the Gear Loading B ⑩.
6) Remove the Washer Slit ⑪, then remove the Gear Cam Tension ⑫.
7) Remove the Washer Slit ⑬, then remove the Gear Loading A ⑭ of the axle.

2. Reassembly

1) Mount the Switch Mode Ass'y ⑥ as described in Timing point (F) of Fig. 33, then secure it with 1 screw ⑤.
2) Mount the Guide Mode Switch ④, then secure it with 1 screw ③.
3) Fit the Gear Loading A ⑭ into the axle and then install it with the Washer Slit ⑬.
4) Mount the Gear Cam Tension ⑫ as described in Timing point (G) of Fig. 33, and then install it with the Washer Slit ⑪.
5) Fit the Gear Loading B ⑩ into the axle, then install it with the Washer Slit ⑨.
6) Mount the Lever Cam Tension ⑧ as described in Timing (H) of Fig. 33, then install it with the Washer Slit ⑦.
7) Align the dowel of the Pole Base Sub Ass'y ② with the Guide Hole ⑮, then mount the Pole Base Sub Ass'y ②, and secure it with the screw ①.

Note : Confirm the Timing point of the Switch Mode Ass'y (See Fig. 33).

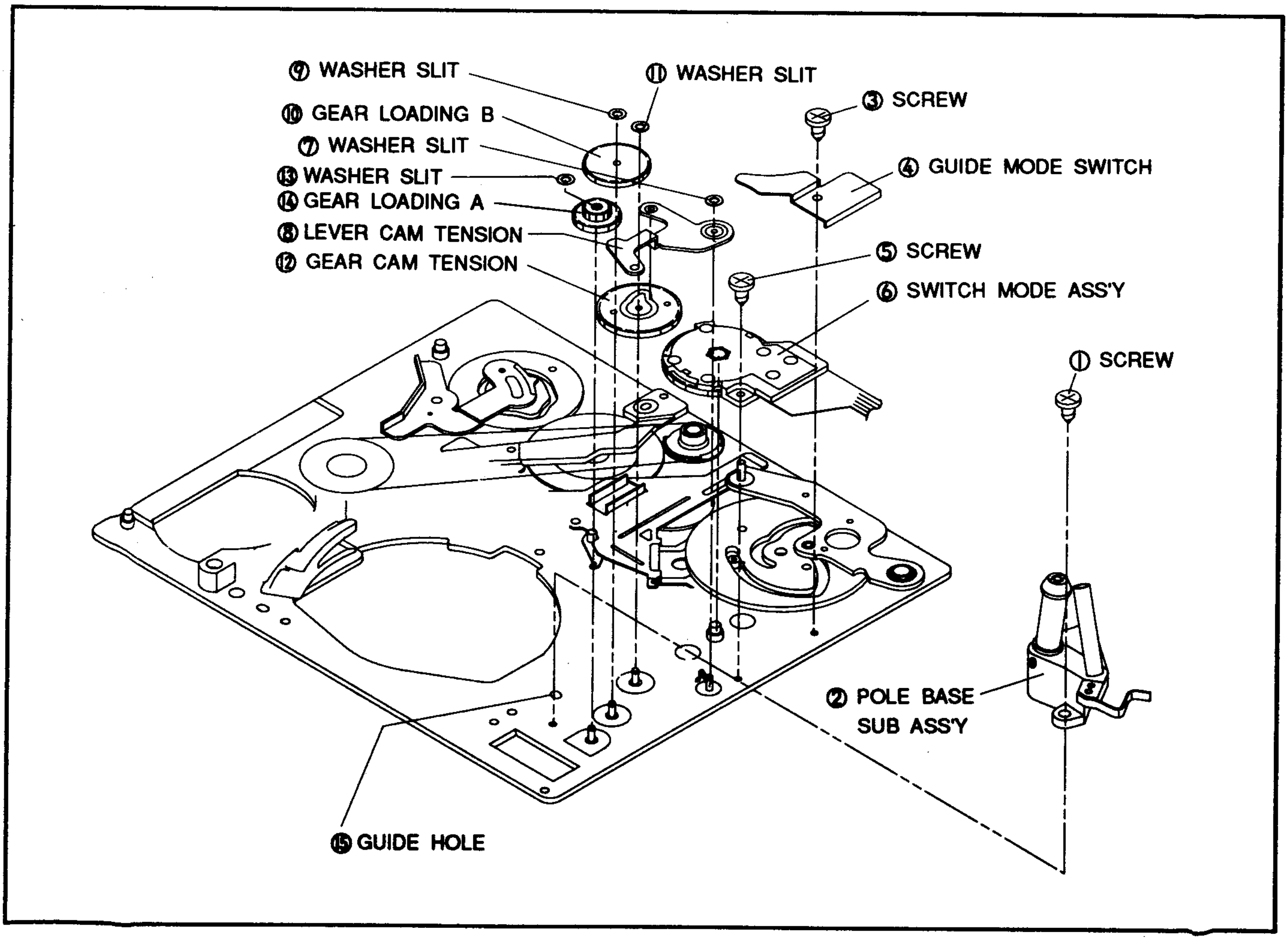

⑨ WASHER SLIT
⑩ GEAR LOADING B
⑦ WASHER SLIT
⑬ WASHER SLIT
⑭ GEAR LOADING A
⑧ LEVER CAM TENSION
⑫ GEAR CAM TENSION
⑪ WASHER SLIT
③ SCREW
④ GUIDE MODE SWITCH
⑤ SCREW
⑥ SWITCH MODE ASS'Y
① SCREW
② POLE BASE SUB ASS'Y
⑮ GUIDE HOLE

Fig. 31

3-2-18. Lever Cam, Lever Eject, Gear Cam Main, Plate Slider Ass'y

1. Removal

1) Remove the Lever Cam Ass'y ① and Roller Cam Main ②.
2) Remove the Lever Eject ③.
3) Remove 1 screw ④, then remove the Gear Cam Main ⑤.
4) Push the Plate Slide Ass'y ⑦ in the direction of arrow A and remove Plate Slide Ass'y ⑦ and the Roller Cam Main ⑥.

> **Note :**
> a) To remove the Gear Cam Main, remove the Guide Mode Switch first. (Refer to 3-2-17)
> b) When removing the Gear Cam Main ⑤, and Lever Cam Main ① from the Main Deck, take care not to lose the Roller Cam Main ②, ⑥. (Refer to Fig. A and Fig. B)

2. Reassembly

1) Insert the Roller Cam Main ⑥ to the Plate Slider Ass'y ⑦ as described in Fig. A, then Mount it to the Main Deck.
2) Pull the Plate Slider Ass'y ⑦ in the direction of arrow B.
3) Install the Gear Cam Main ⑤ so that the hole of Gear Cam Main ⑤ and the hole of Main Base are aligned as shown in the "Timing (D)", then secure it with 1 screw ④.
4) Install the Lever-Eject on the pin of the Main Base.
5) Insert the Lever Cam Ass'y ① into the groove of the Gear Cam Main ⑤ as shown in the Timing (E).

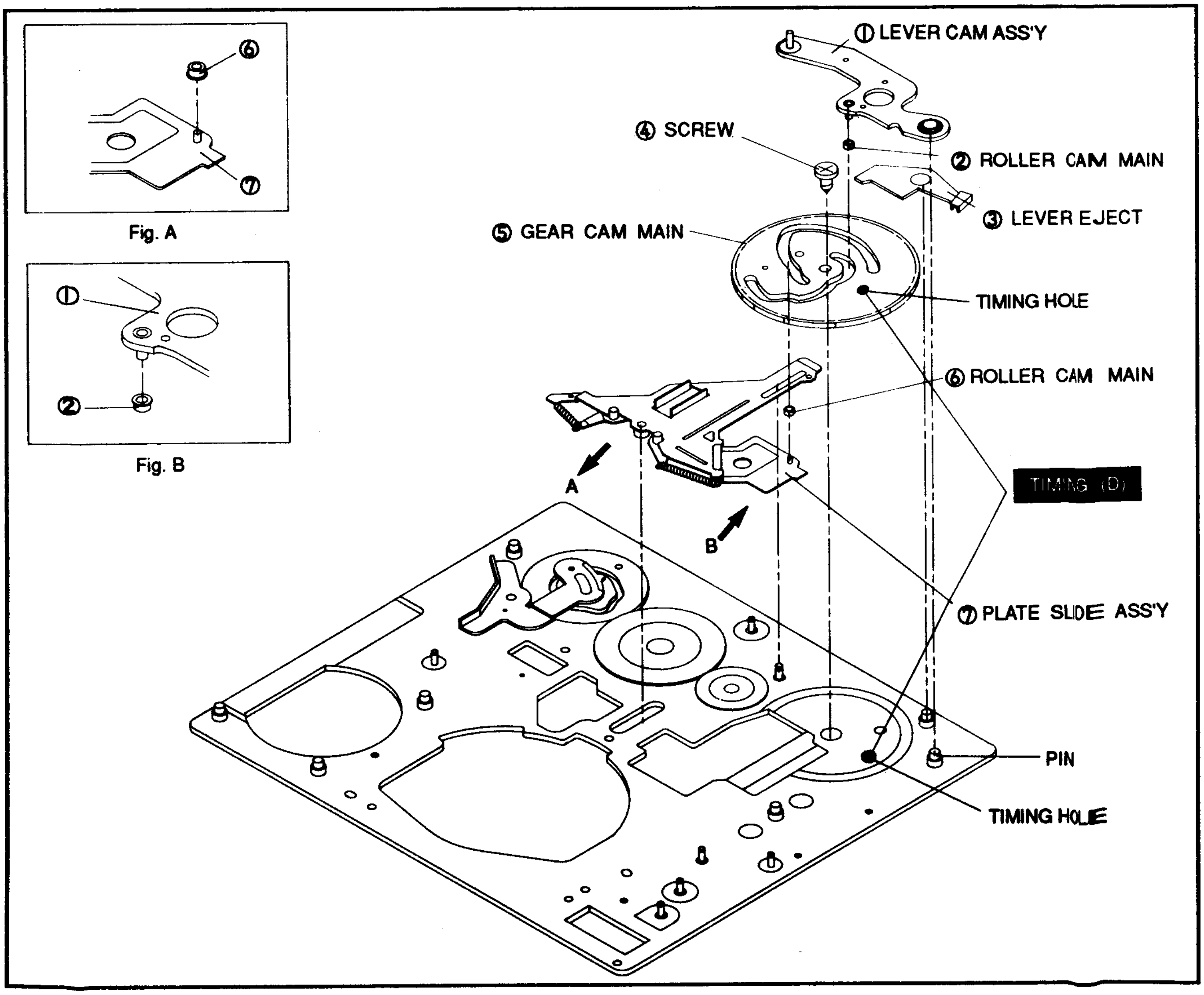

⑥
⑦
Fig. A
①
②
Fig. B
① LEVER CAM ASS'Y
④ SCREW
② ROLLER CAM MAIN
③ LEVER EJECT
⑤ GEAR CAM MAIN
TIMING HOLE
⑥ ROLLER CAM MAIN
TIMING (D)
A
B
⑦ PLATE SLIDE ASS'Y
PIN
TIMING HOLE

Fig. 32

3-2-19. Timing Point in Main Deck

1. Timing Point Explanation

TIMING A : Align install Hole of Gear Cam Pinch ⑦ with Hole on Main Base.
TIMING B : When installing Lever Cam Pinch to Gear Cam Pinch, Timing "B" point of Cam as described in Fig. 33.
TIMING C : After assembling Plate Slider Ass'y ⑥, when installing Gear Cam Main ④, pull the plate Slider Ass'y ⑥ toward arrow and then install the Gear Cam Main ④.
TIMING D : Align Hole of Gear Cam Main ④ with large Hole on Main Base.
TIMING E : When installing Lever Cam ⑤ to Gear Cam Main ④, Timing "E" point of Cam as described in Fig. 33.
TIMING F : When assembling the Gear Cam Main ④ and the Mode Switch Ass'y ③.
TIMING G : When assembling the Mode Switch Ass'y ③ and the Gear Cam Tension ①.
TIMING H : When installing Lever Cam Tension ② to Gear Cam Tension ①, Timing "H" point of Cam as described in Fig. 33.

Note : 1) Gear Train is installed A, B, C, D and E in order.
2) If install points (Timing Points) of Gear Trains are mismatched, malfunction and part damage may occur. Special precaution is required to prevent it.

2. Important timing to assemble Sub-Deck

After finishing assembly of Gear Train, rotate Gear Cam Main ④ to align 3 holes of install point, as desciebed in Fig. A, in order to assemble Sub Deck.

Note : If loading Motor is installed, Gear Train will not be working. But Loading Motor can be moved by Power Supply giving 3V to Loading Motor.

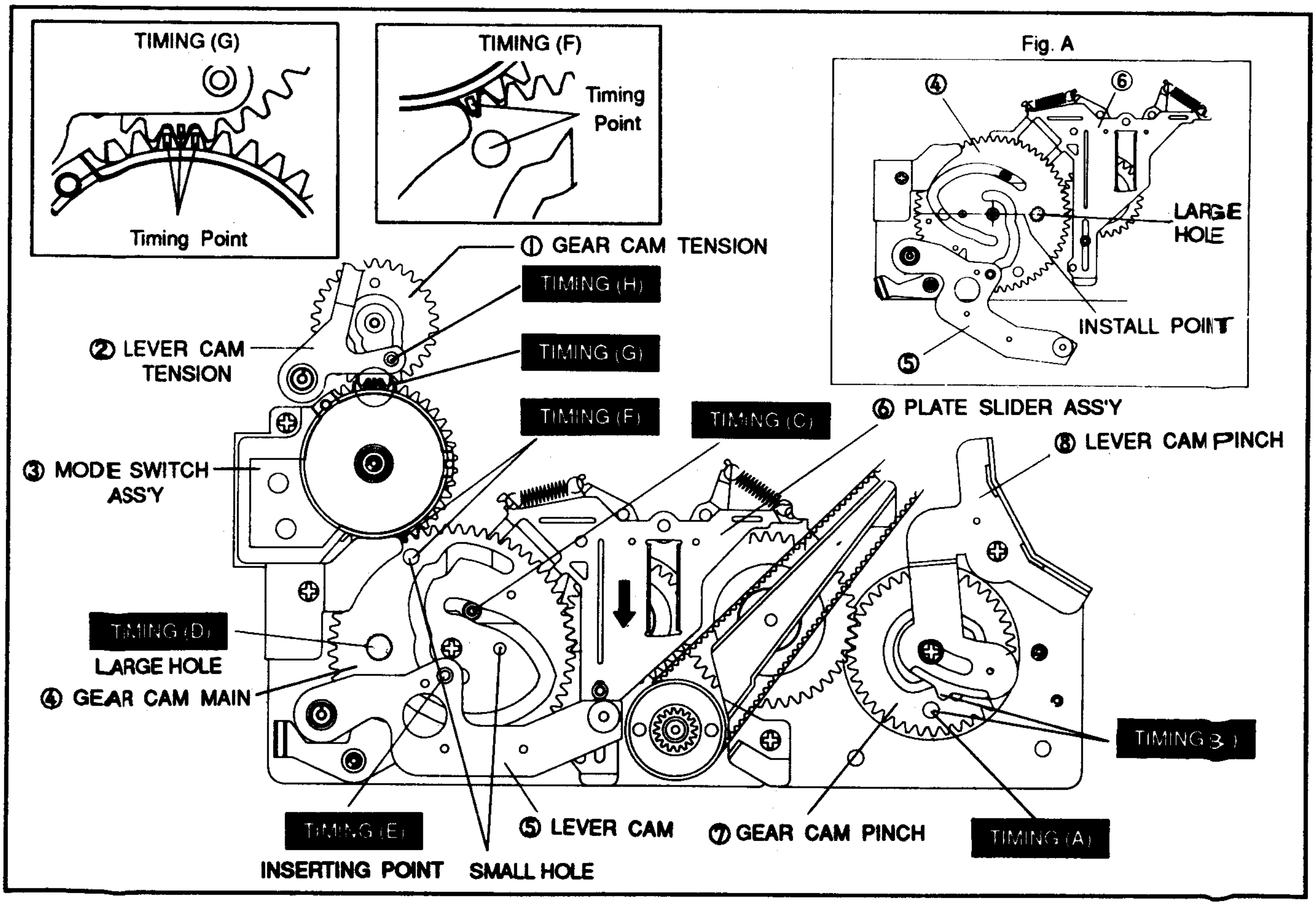

TIMING (G)
Timing Point
TIMING (F)
Timing Point
Fig. A
④
⑥
LARGE HOLE
INSTALL POINT
⑤
① GEAR CAM TENSION
TIMING (H)
② LEVER CAM TENSION
TIMING (G)
TIMING (F)
TIMING (C)
⑥ PLATE SLIDER ASS'Y
⑧ LEVER CAM PINCH
③ MODE SWITCH ASS'Y
TIMING (D)
LARGE HOLE
④ GEAR CAM MAIN
TIMING (B)
TIMING (E)
INSERTING POINT
SMALL HOLE
⑤ LEVER CAM
⑦ GEAR CAM PINCH
TIMING (A)

Fig. 33

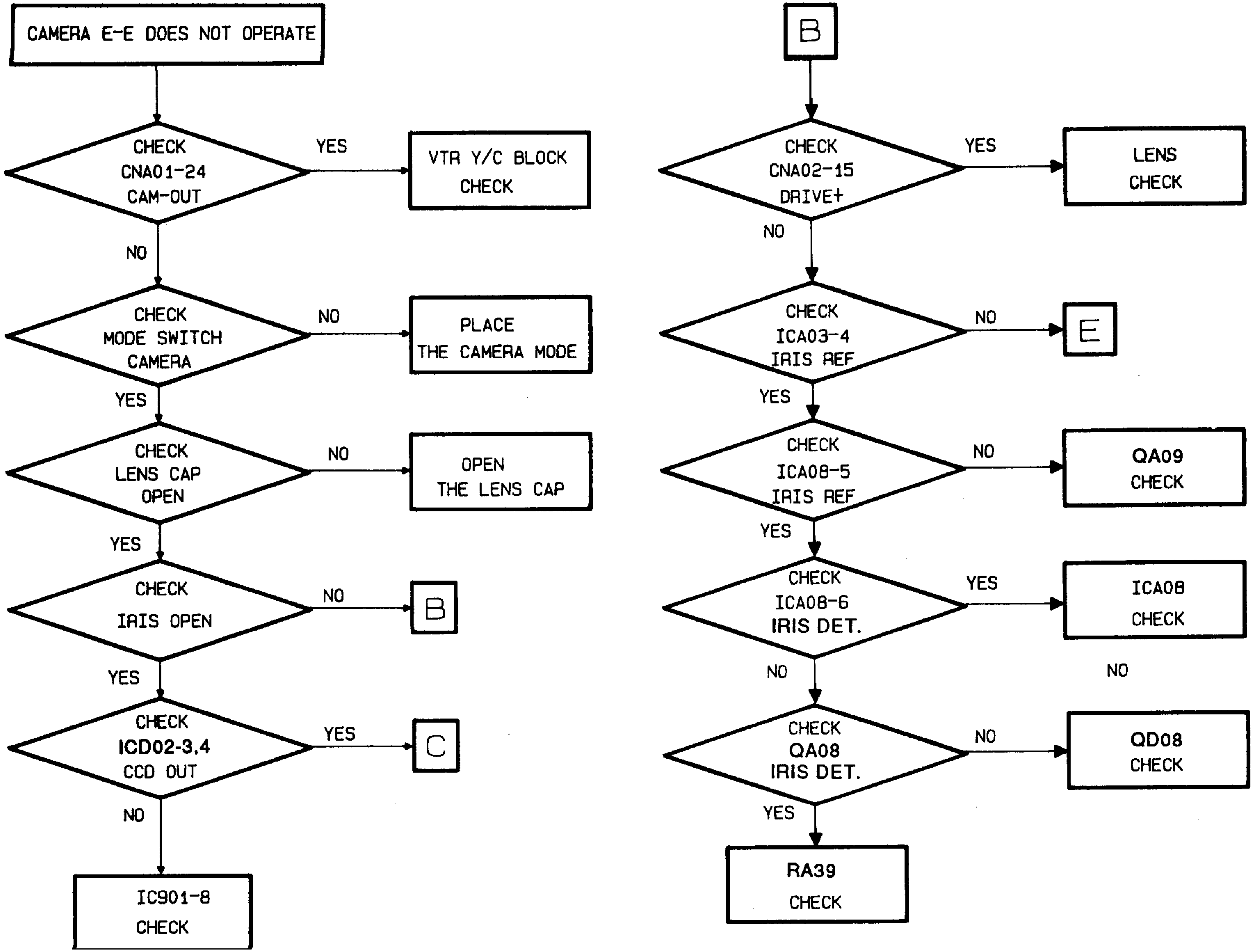
4. ABBREVIATIONS

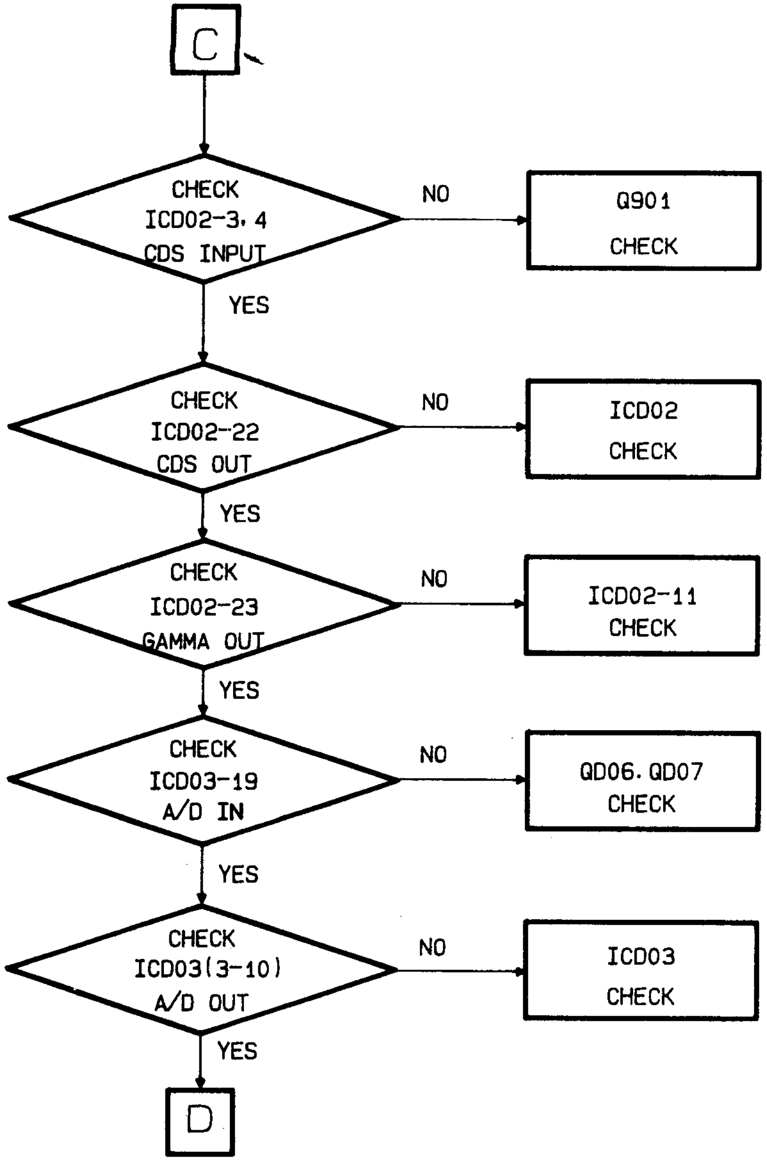
ABBREVIATION	EXPLANATION
ACC	Automatic Color Control
ACE	Audio Control Erase
ACK	Automatic Color Killer
ADJ	Adjustment
A/D	Analog/Digital
AE	Auto Exposure
AF	Auto Focus
AFC	Automatic Frequency Control
AFM	Audio Frequency Modulation
AGC	Automatic Gain Control
AMP	Amplifier
APC	Automatic Pedestal Control
ASS'Y	Assembly
ATF	Automatic Track Finding
ATT	Attenuator
AUTO	Automatic
AUX	Auxiliary
BATT	Battery
BF	Burst Flag
BFG	Burst Flag Gate
BLC	Back Light Compensation
BLK	Black
BPF	Band Pass Filter
BUFF	Buffer
B/W	Black/White
CAM	Camera
CAMCORDER	Camera Recorder
CAP	Capstan
CAR	Carrier
CASS	Cassette
CBA	Circuit Board Assembly
CCD	Charge Coupled Device
CH	Channel
CHROMA or C	Chrominance
CLK	Clock
CLP	Clamp
CM	Capstan Motor
CN	Connector
CNR	Chroma Noise Reduction
COM	Common
COMB	Comb Filter
COMP	Composite
CRT	Cathode Ray Tube
CS	Chip Selector
CTL	Control
D/A	Digital/Analog
dB	Decibel (Measurement Unit)
DC	Direct Current
DD	Direct Drive
DEMOD	Demodulator
DET	Detect
DL	Delay Line
DOC	Drop Out Compensater
DY	Deflection Yoke
E-E	Electronic to Electronic
EMP	Emphasis
ENV	Envelope
EQ	Equalizer
EXT	External
EVF	Electronic View Finder
F/E	Flying Erase
FET	Field Effect Transistor
FF	Fast Forward, Flip-Flop
FG	Frequency Generator
FL	Filter
FM	Frequency Modulation
FPC	Flexible Pattern Circuit
FPS	Forward Picture Search
Freq.	Frequency
FSC	Frequency Sub Carrier
FWD	Forward
GC	Gain Control
GEN	Generator
GND	Ground
GRN	Green
GRY	Gray
HD	Head, Horizontal Drive
HG	Hall Generator
HPF	High Pass Filter
Hz	Hertz
IC	Integrated Circuit
IR	Infrared
INT	Interrupter
I/O	Input/Output
IRE	Institute of Radio Engineers
LCD	Liquid Crystal Display
LED	Light Emitting Diode
LM	Loading Motor
LP	Long Play
LPF	Low Pass Filter
MAX	Maximum
M/F	Manual Focus
MIC	Microphone
MIN	Minimum

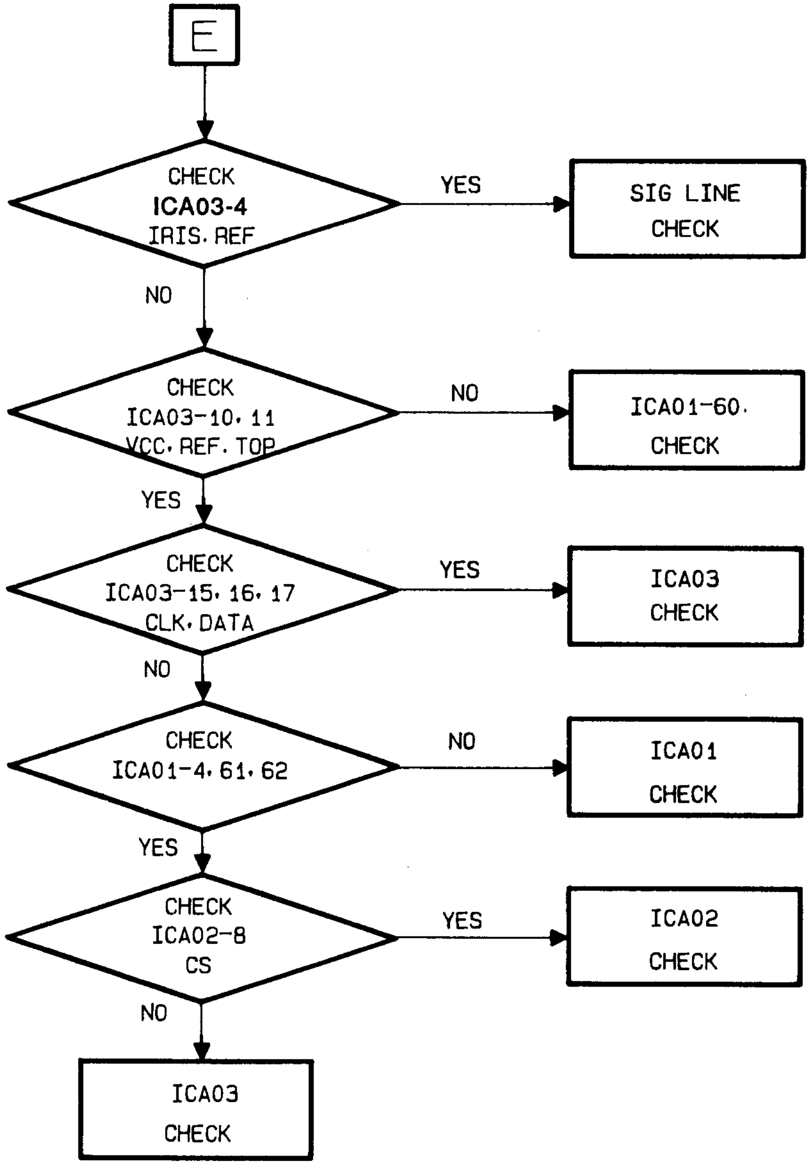
ABBREVIATION	EXPLANATION
MIX	Mixer
MODED	Modulator-Demodulator
MTX	Matrix
NC	Not Connected
NR	Noise Reduction
NOR	Normal
OFD	Overflow Drain
OP AMP	Operational Amplifier
OSC	Oscillator
PB	Play Back
PCM	Pulse Coded Modulation
PG	Pulse Generator
PLA	Programmable Logic Array
PLL	Phase Locked Loop
P-P	Peak to Peak
PRE-AMP	Pre-Amplifier
P/S	Pause/Still
PWM	Pulse Width Modulation
PWR	Power
RAM	Random Access Memory
REC	Recording
REF	Reference
REG	Regulator
REV	Reverse
REW	Rewind
RF	Radio Frequency
RG	Reset Gate
ROM	Read Only Memory
RST	Reset
RPS	Reverse Picture Search
SCK	Serial Clock
SFG	Supply FG
SHD	Sample Hold Data
SHP	Sample Hold Precharge
SHP	Sharpness
SI	Serial Data Input
SO	Serial Data Output
SP	Standard Play
SN	Signal to Noise Ratio
STB	Strobe
S/W	Switch
SYNC	Synchronization
SYSCON	System Control
TP	Test Point
TR	Transistor
TRK	Tracking

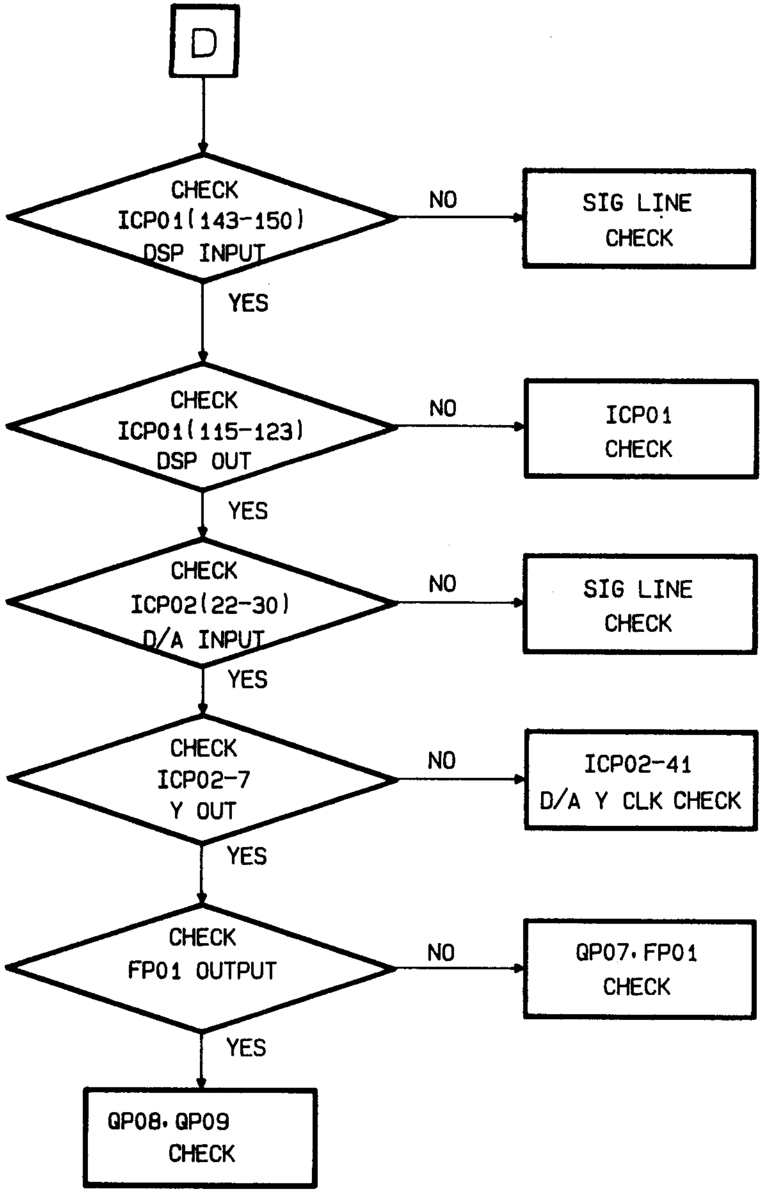
ABBREVIATION	EXPLANATION
UL	Unloading
UNREG	Unregulated
u-COM	Microprocessor
VCO	Voltage Control Oscillator
VCR	Video Cassette Recorder
VR	Variable Resistor
V-SYNC	Vertical-sync.
VXO	Variable Crystal Oscillator
W/B	White Balance
X-TAL	Crystal
Y/C	Luminance/Chrominance
4.43MHz	Color Sub Carrier

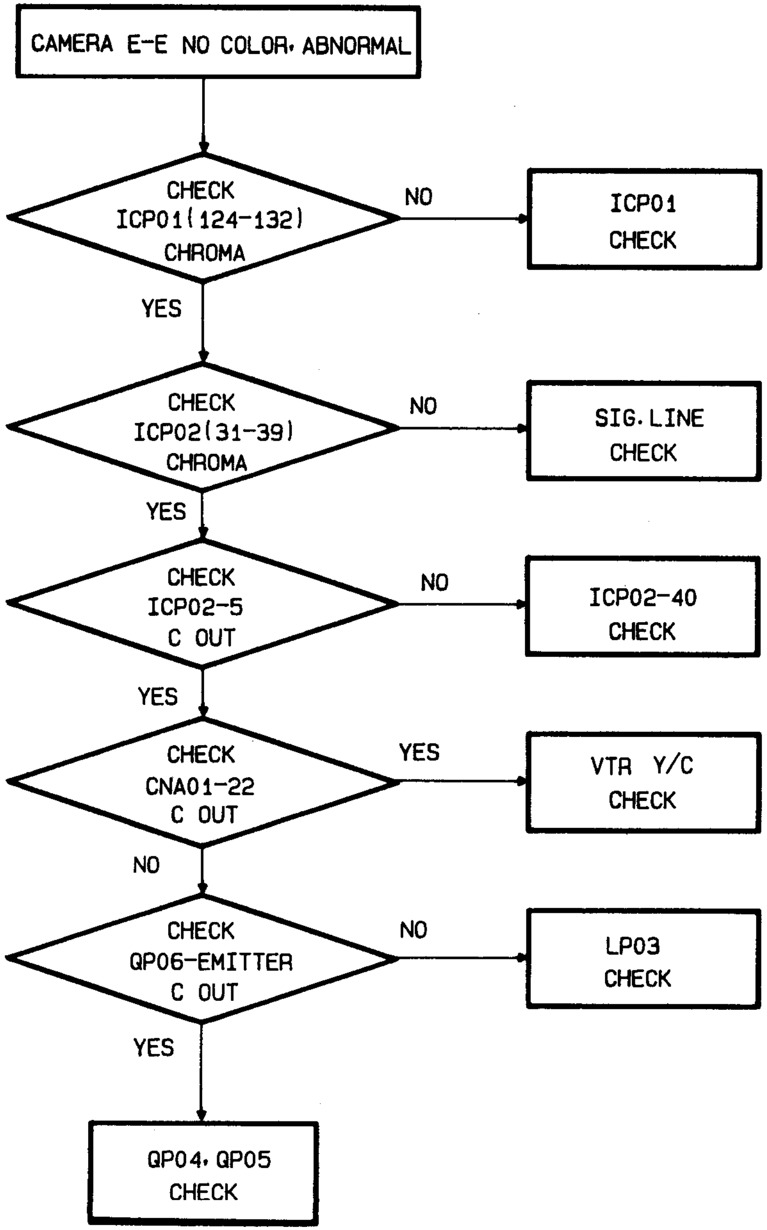
5. TROUBLESHOOTING

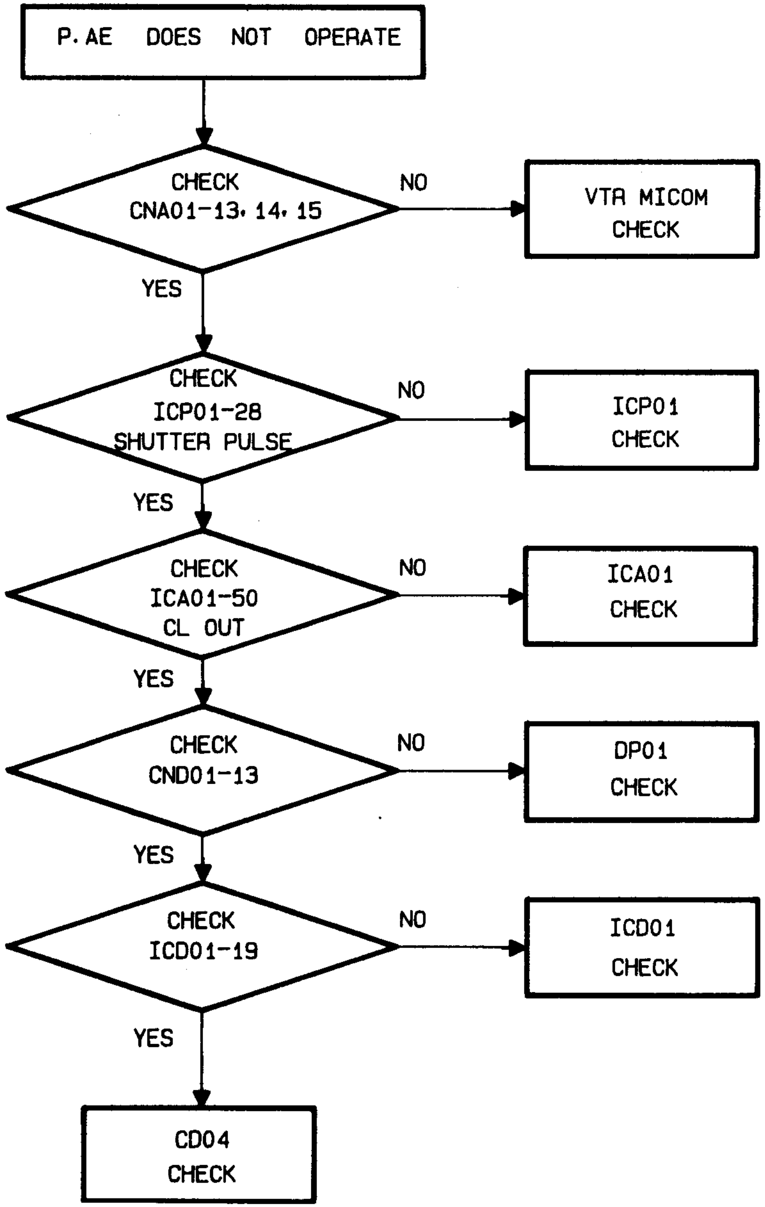

CAMERA E-E DOES NOT OPERATE
CHECK CNA01-24 CAM-OUT
YES
VTR Y/C BLOCK CHECK
NO
CHECK MODE SWITCH CAMERA
NO
PLACE THE CAMERA MODE
YES
CHECK LENS CAP OPEN
NO
OPEN THE LENS CAP
YES
CHECK IRIS OPEN
NO
B
YES
CHECK ICD02-3,4 CCD OUT
YES
C
NO
IC901-8 CHECK
B
CHECK CNA02-15 DRIVE+
YES
LENS CHECK
NO
CHECK ICA03-4 IRIS REF
NO
E
YES
CHECK ICA08-5 IRIS REF
NO
QA09 CHECK
YES
CHECK ICA08-6 IRIS DET.
YES
ICA08 CHECK
NO
NO
CHECK QA08 IRIS DET.
NO
QD08 CHECK
YES
RA39 CHECK

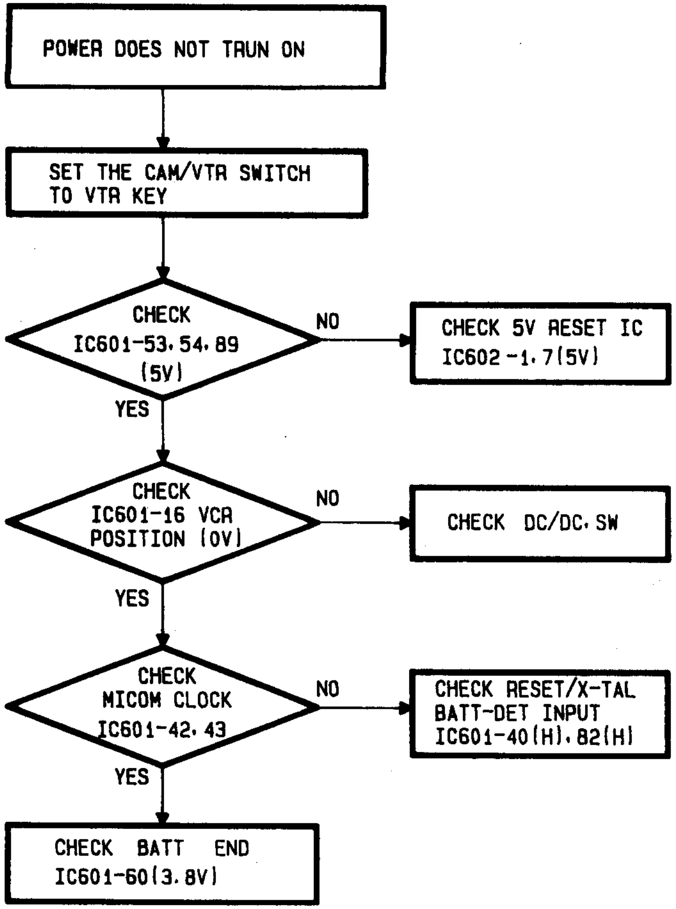

C
CHECK ICD02-3, 4 CDS INPUT
NO
Q901 CHECK
YES
CHECK ICD02-22 CDS OUT
NO
ICD02 CHECK
YES
CHECK ICD02-23 GAMMA OUT
NO
ICD02-11 CHECK
YES
CHECK ICD03-19 A/D IN
NO
QD06, QD07 CHECK
YES
CHECK ICD03(3-10) A/D OUT
NO
ICD03 CHECK
YES
D

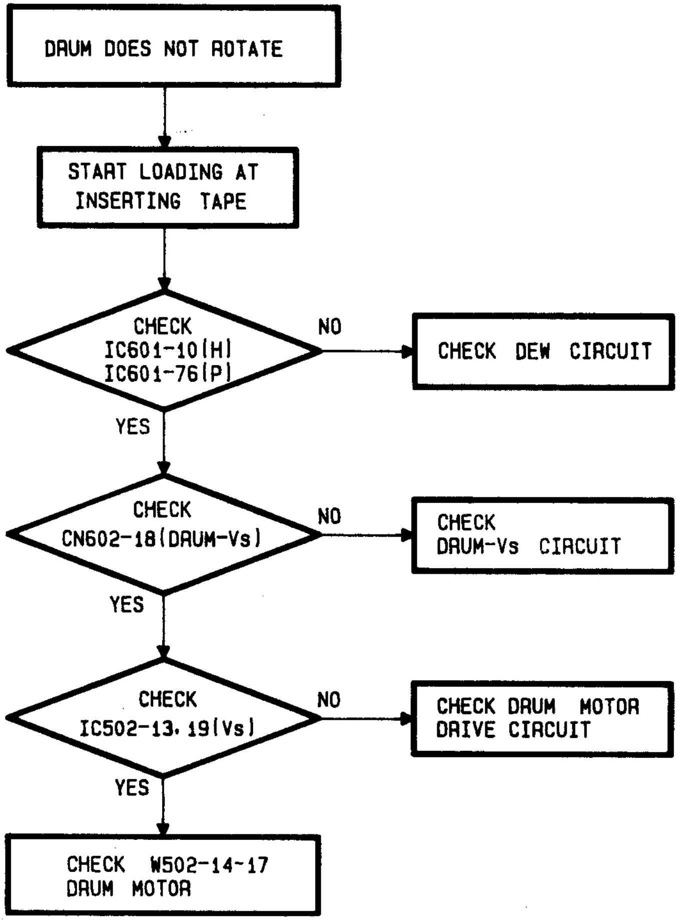

E
CHECK ICA03-4 IRIS. REF
YES
SIG LINE CHECK
NO
CHECK ICA03-10, 11 VCC, REF. TOP
NO
ICA01-60, CHECK
YES
CHECK ICA03-15, 16, 17 CLK, DATA
YES
ICA03 CHECK
NO
CHECK ICA01-4, 61, 62
NO
ICA01 CHECK
YES
CHECK ICA02-8 CS
YES
ICA02 CHECK
NO
ICA03 CHECK

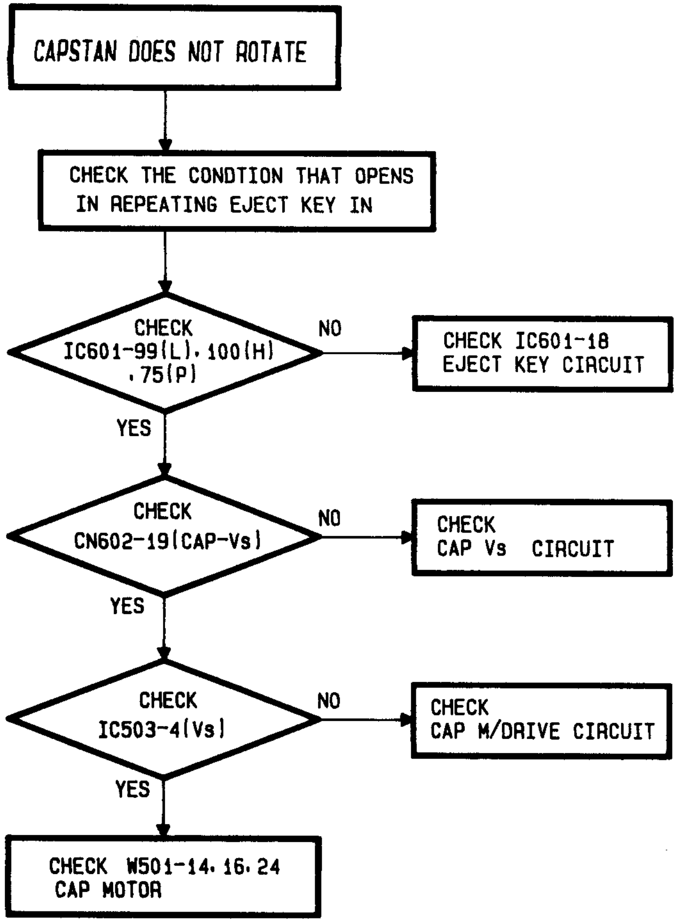

D
CHECK ICP01(143-150) DSP INPUT
NO
SIG LINE CHECK
YES
CHECK ICP01(115-123) DSP OUT
NO
ICP01 CHECK
YES
CHECK ICP02(22-30) D/A INPUT
NO
SIG LINE CHECK
YES
CHECK ICP02-7 Y OUT
NO
ICP02-41 D/A Y CLK CHECK
YES
CHECK FP01 OUTPUT
NO
QP07, FP01 CHECK
YES
QP08, QP09 CHECK

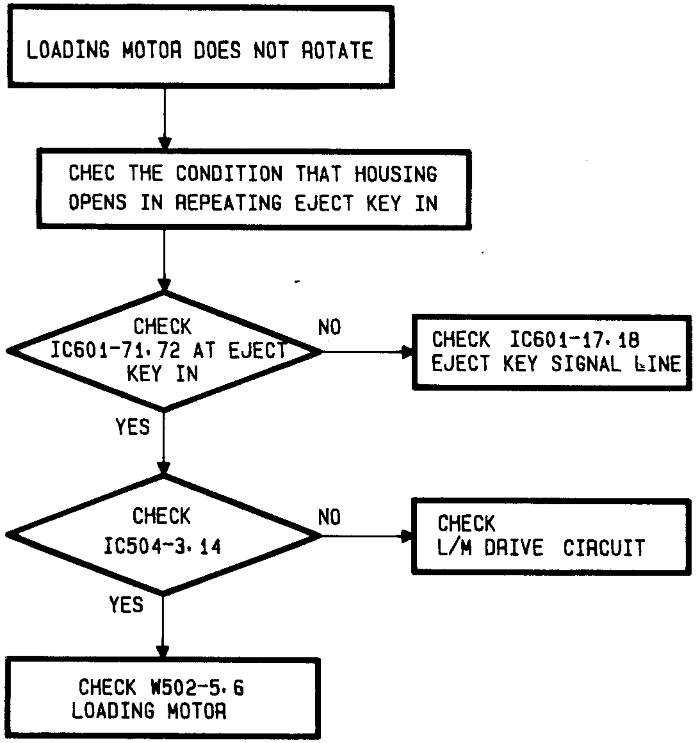

CAMERA E-E NO COLOR, ABNORMAL
CHECK ICP01(124-132) CHROMA
NO
ICP01 CHECK
YES
CHECK ICP02(31-39) CHROMA
NO
SIG. LINE CHECK
YES
CHECK ICP02-5 C OUT
NO
ICP02-40 CHECK
YES
CHECK CNA01-22 C OUT
YES
VTR Y/C CHECK
NO
CHECK QP06-EMITTER C OUT
NO
LP03 CHECK
YES
QP04, QP05 CHECK

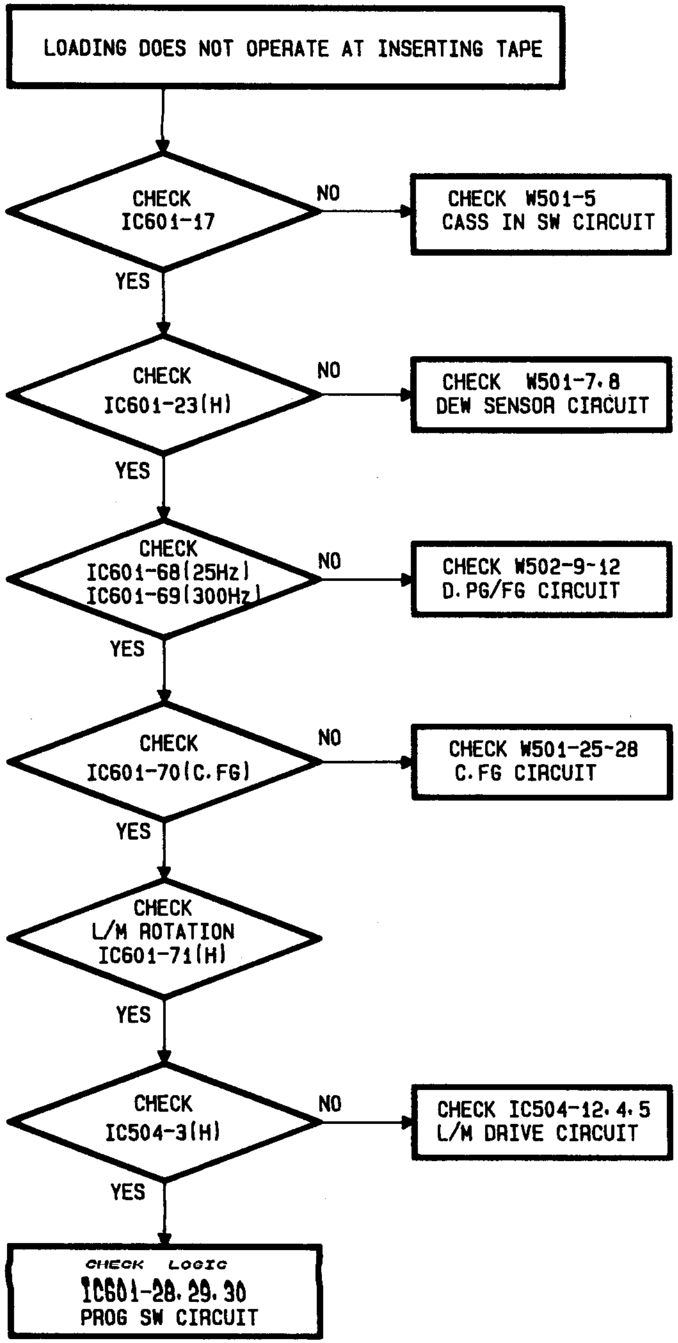

P. AE DOES NOT OPERATE
CHECK CNA01-13, 14, 15
NO
VTR MICOM CHECK
YES
CHECK ICP01-28 SHUTTER PULSE
NO
ICP01 CHECK
YES
CHECK ICA01-50 CL OUT
NO
ICA01 CHECK
YES
CHECK CND01-13
NO
DP01 CHECK
YES
CHECK ICD01-19
NO
ICD01 CHECK
YES
CD04 CHECK

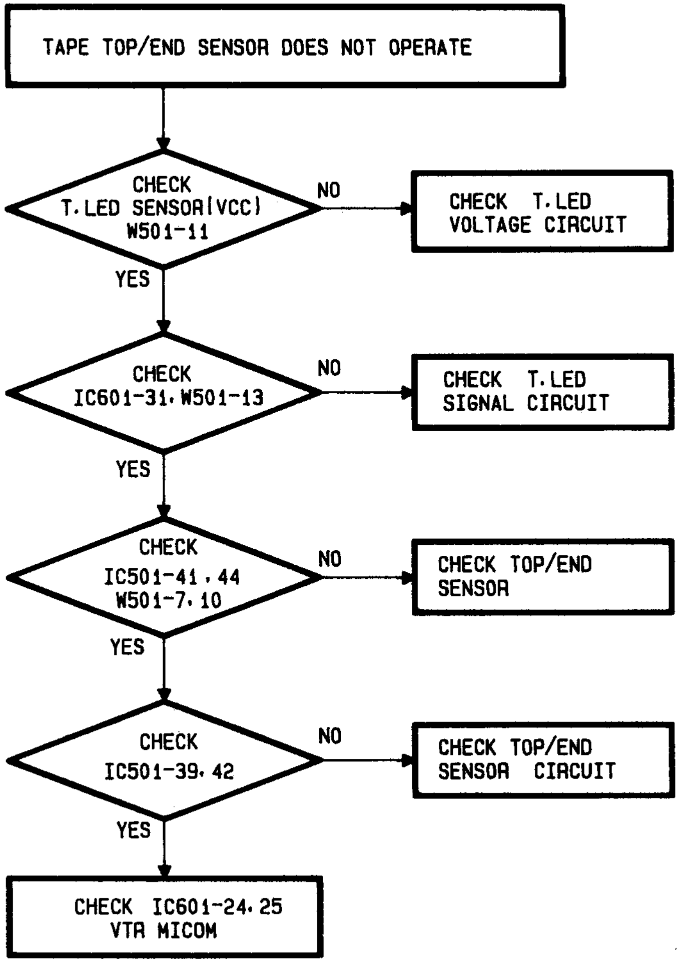

POWER DOES NOT TRUN ON
SET THE CAM/VTR SWITCH TO VTR KEY
CHECK IC601-53, 54, 89 (5V)
NO
CHECK 5V RESET IC IC602-1, 7(5V)
YES
CHECK IC601-16 VCR POSITION (0V)
NO
CHECK DC/DC, SW
YES
CHECK MICOM CLOCK IC601-42, 43
NO
CHECK RESET/X-TAL BATT-DET INPUT IC601-40(H), 82(H)
YES
CHECK BATT END IC601-60(3.8V)

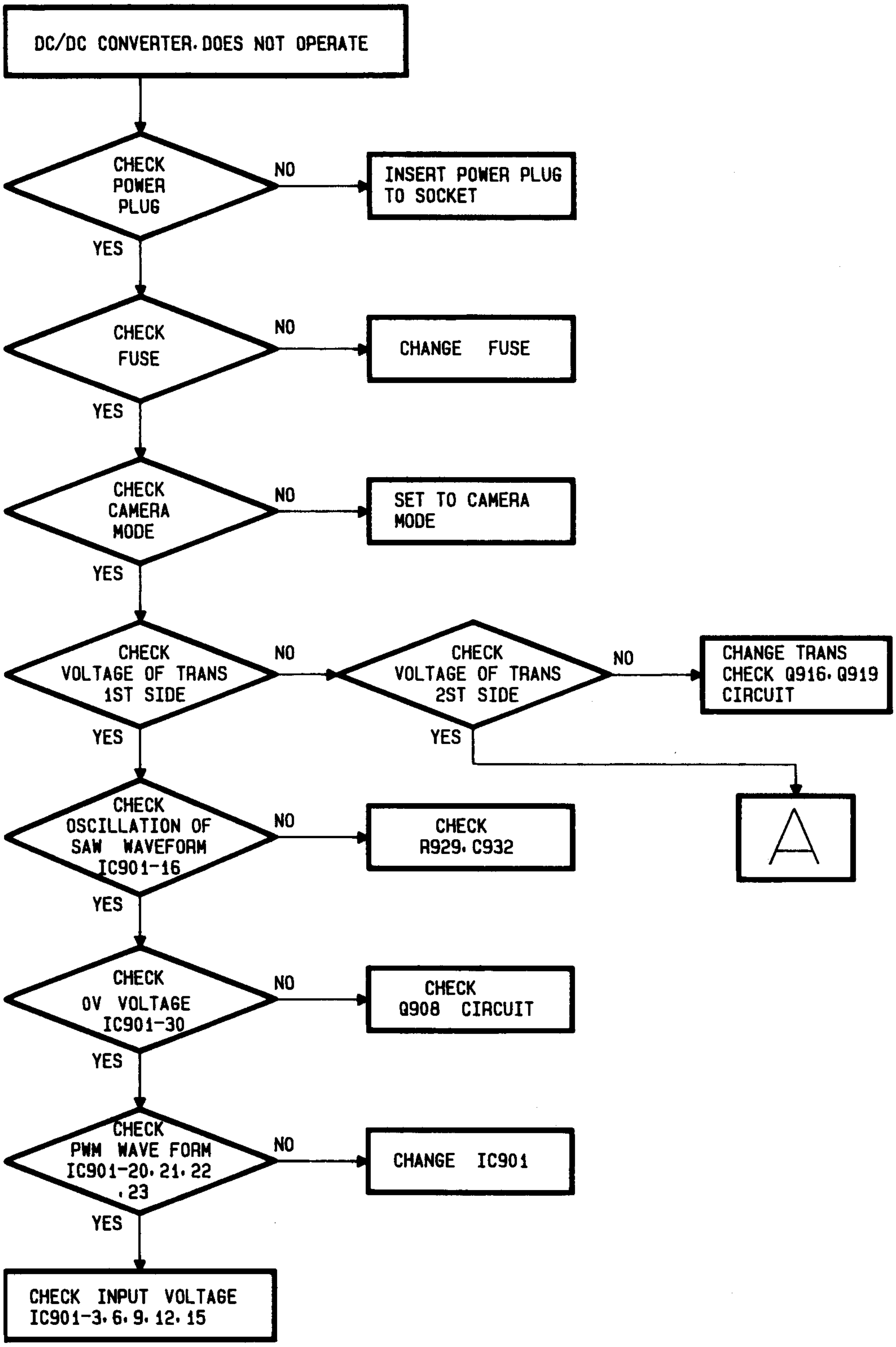

DRUM DOES NOT ROTATE
START LOADING AT INSERTING TAPE
CHECK IC601-10(H) IC601-76(P)
NO
CHECK DEW CIRCUIT
YES
CHECK CN602-18(DRUM-Vs)
NO
CHECK DRUM-Vs CIRCUIT
YES
CHECK IC502-13, 19(Vs)
NO
CHECK DRUM MOTOR DRIVE CIRCUIT
YES
CHECK W502-14-17 DRUM MOTOR

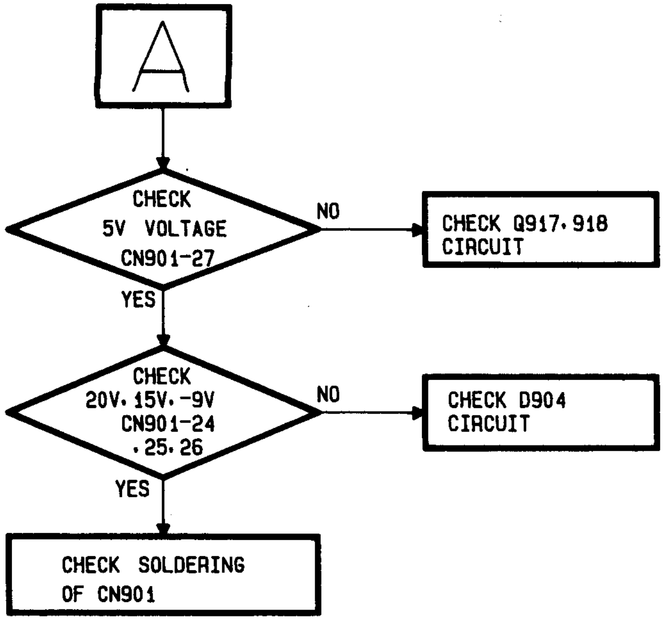

CAPSTAN DOES NOT ROTATE
CHECK THE CONDTION THAT OPENS IN REPEATING EJECT KEY IN
CHECK IC601-99(L), 100(H), 75(P)
NO
CHECK IC601-18 EJECT KEY CIRCUIT
YES
CHECK CN602-19(CAP-Vs)
NO
CHECK CAP Vs CIRCUIT
YES
CHECK IC503-4(Vs)
NO
CHECK CAP M/DRIVE CIRCUIT
YES
CHECK W501-14, 16, 24 CAP MOTOR

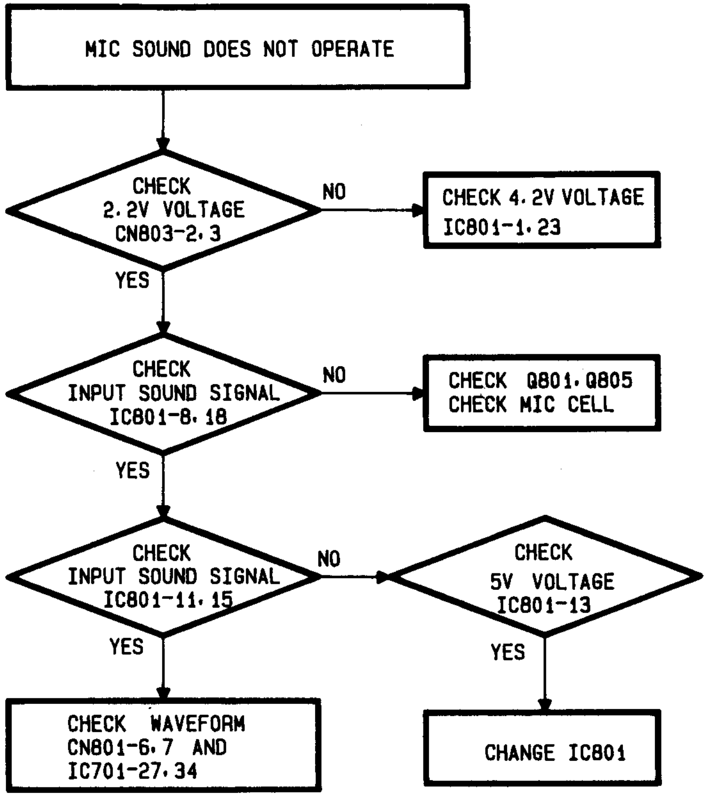

LOADING MOTOR DOES NOT ROTATE
CHEC THE CONDITION THAT HOUSING OPENS IN REPEATING EJECT KEY IN
CHECK IC601-71, 72 AT EJECT KEY IN
NO
CHECK IC601-17, 18 EJECT KEY SIGNAL LINE
YES
CHECK IC504-3, 14
NO
CHECK L/M DRIVE CIRCUIT
YES
CHECK W502-5, 6 LOADING MOTOR

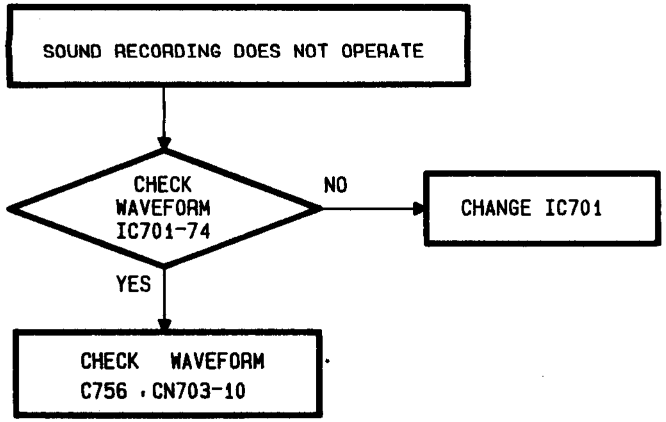

LOADING DOES NOT OPERATE AT INSERTING TAPE
CHECK IC601-17
NO
CHECK W501-5 CASS IN SW CIRCUIT
YES
CHECK IC601-23(H)
NO
CHECK W501-7, 8 DEW SENSOR CIRCUIT
YES
CHECK IC601-68(25Hz) IC601-69(300Hz)
NO
CHECK W502-9~12 D.PG/FG CIRCUIT
YES
CHECK IC601-70(C.FG)
NO
CHECK W501-25~28 C.FG CIRCUIT
YES
CHECK L/M ROTATION IC601-71(H)
YES
CHECK IC504-3(H)
NO
CHECK IC504-12, 4, 5 L/M DRIVE CIRCUIT
YES
CHECK LOGIC IC601-28, 29, 30 PROG SW CIRCUIT

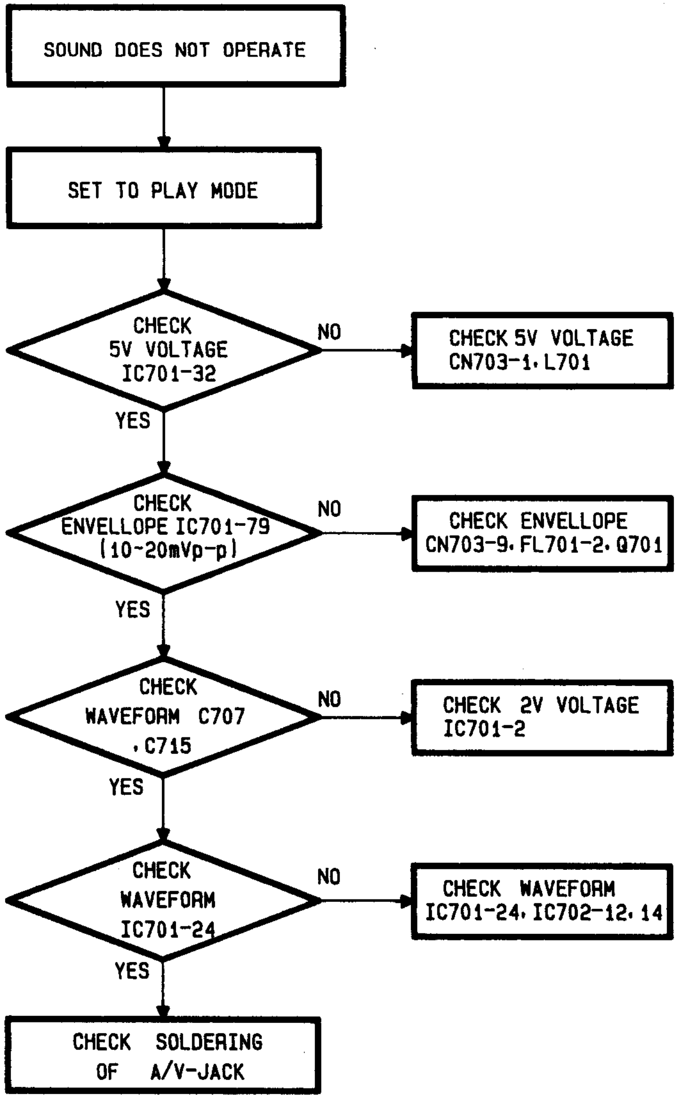

TAPE TOP/END SENSOR DOES NOT OPERATE
CHECK T.LED SENSOR(VCC) W501-11
NO
CHECK T.LED VOLTAGE CIRCUIT
YES
CHECK IC601-31, W501-13
NO
CHECK T.LED SIGNAL CIRCUIT
YES
CHECK IC501-41, 44 W501-7, 10
NO
CHECK TOP/END SENSOR
YES
CHECK IC501-39, 42
NO
CHECK TOP/END SENSOR CIRCUIT
YES
CHECK IC601-24, 25 VTR MICOM

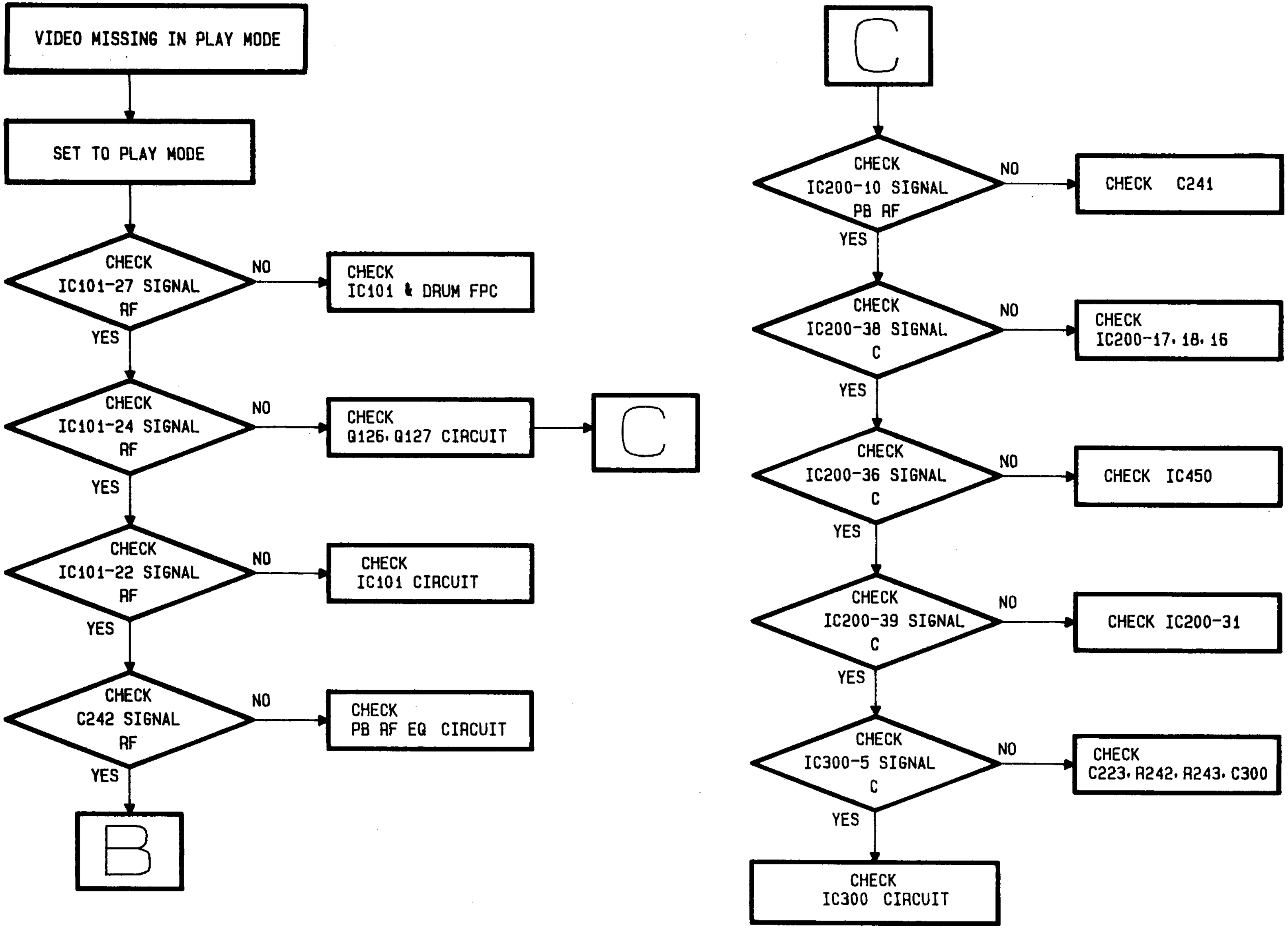

DC/DC CONVERTER. DOES NOT OPERATE
CHECK POWER PLUG
NO
INSERT POWER PLUG TO SOCKET
YES
CHECK FUSE
NO
CHANGE FUSE
YES
CHECK CAMERA MODE
NO
SET TO CAMERA MODE
YES
CHECK VOLTAGE OF TRANS 1ST SIDE
NO
CHECK VOLTAGE OF TRANS 2ST SIDE
NO
CHANGE TRANS CHECK Q916, Q919 CIRCUIT
YES
A
YES
CHECK OSCILLATION OF SAW WAVEFORM IC901-16
NO
CHECK R929, C932
YES
CHECK 0V VOLTAGE IC901-30
NO
CHECK Q908 CIRCUIT
YES
CHECK PWM WAVE FORM IC901-20, 21, 22, 23
NO
CHANGE IC901
YES
CHECK INPUT VOLTAGE IC901-3, 6, 9, 12, 15

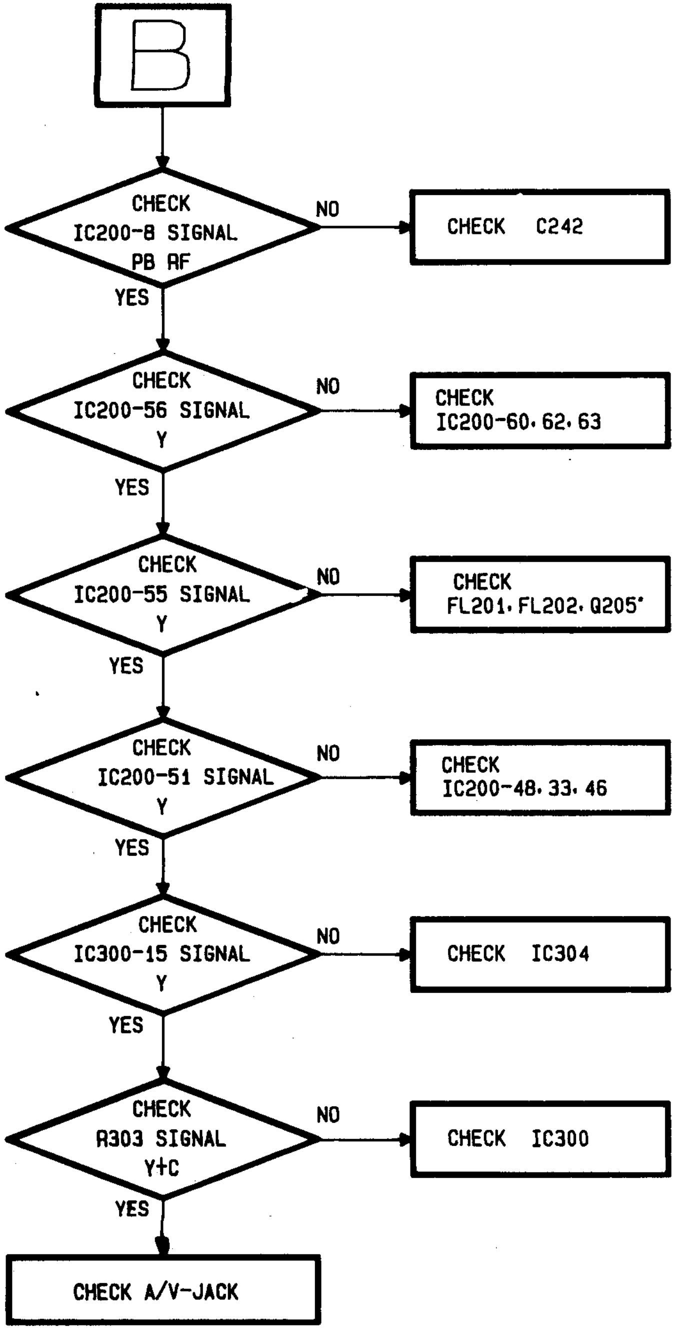

A
CHECK 5V VOLTAGE CN901-27
NO
CHECK Q917, 918 CIRCUIT
YES
CHECK 20V, 15V, -9V CN901-24, 25, 26
NO
CHECK D904 CIRCUIT
YES
CHECK SOLDERING OF CN901

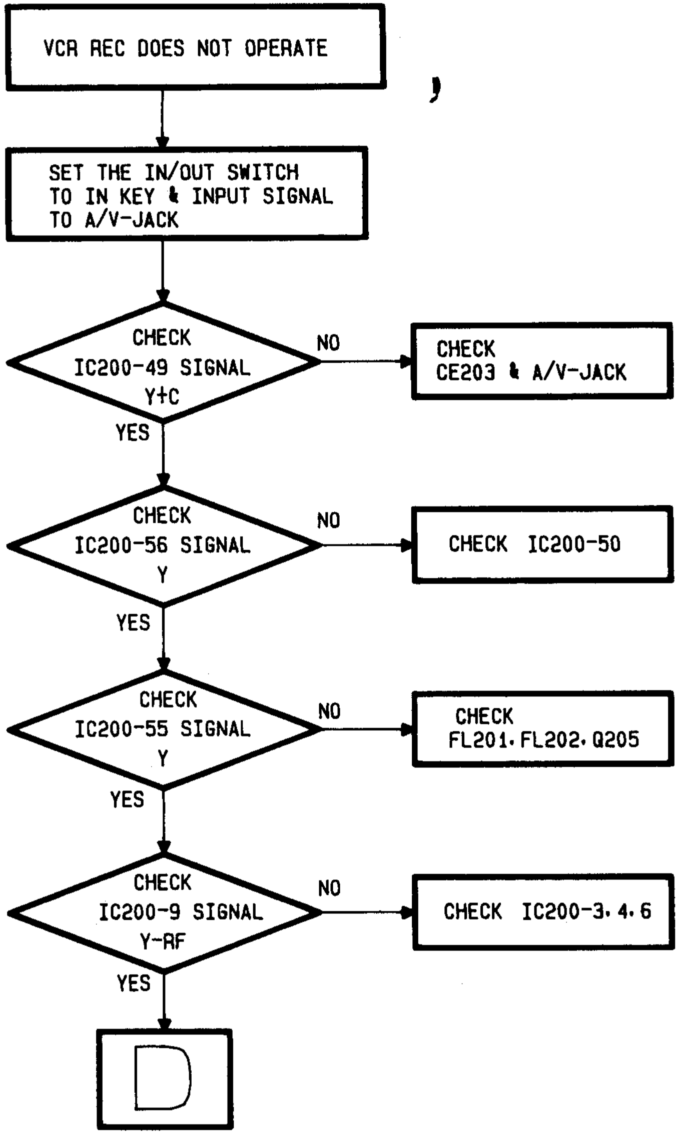

MIC SOUND DOES NOT OPERATE
CHECK 2.2V VOLTAGE CN803-2, 3
NO
CHECK 4.2V VOLTAGE IC801-1, 23
YES
CHECK INPUT SOUND SIGNAL IC801-8, 18
NO
CHECK Q801, Q805 CHECK MIC CELL
YES
CHECK INPUT SOUND SIGNAL IC801-11, 15
NO
CHECK 5V VOLTAGE IC801-13
YES
CHANGE IC801
YES
CHECK WAVEFORM CN801-6, 7 AND IC701-27, 34

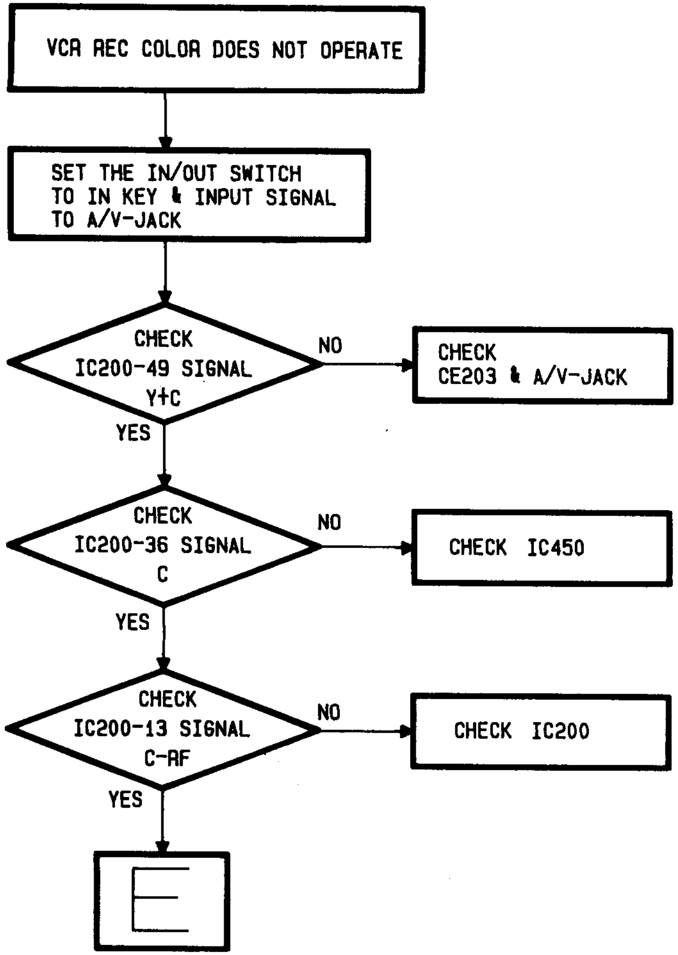

SOUND RECORDING DOES NOT OPERATE
CHECK WAVEFORM IC701-74
NO
CHANGE IC701
YES
CHECK WAVEFORM C756 , CN703-10

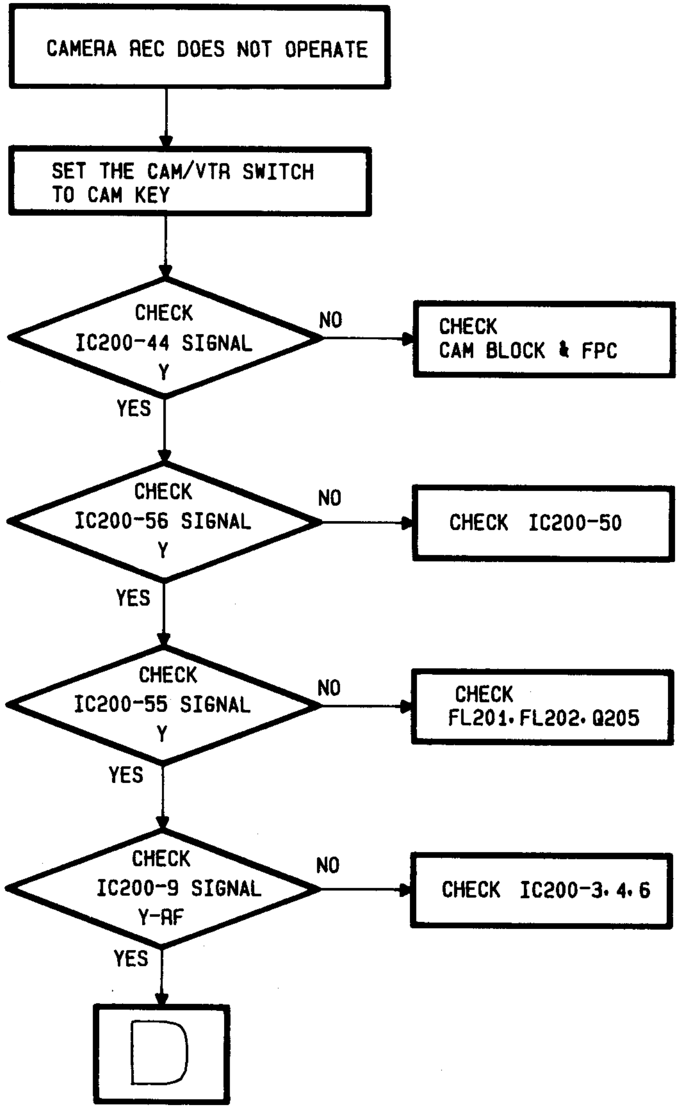

SOUND DOES NOT OPERATE
SET TO PLAY MODE
CHECK 5V VOLTAGE IC701-32
NO
CHECK 5V VOLTAGE CN703-1, L701
YES
CHECK ENVELLOPE IC701-79 (10~20mVp-p)
NO
CHECK ENVELLOPE CN703-9, FL701-2, Q701
YES
CHECK WAVEFORM C707 , C715
NO
CHECK 2V VOLTAGE IC701-2
YES
CHECK WAVEFORM IC701-24
NO
CHECK WAVEFORM IC701-24, IC702-12, 14
YES
CHECK SOLDERING OF A/V-JACK

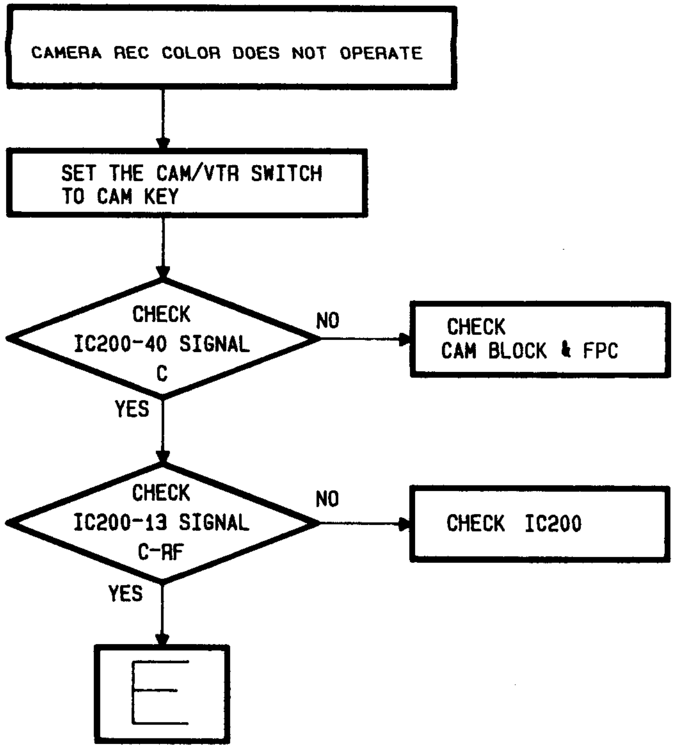

VIDEO MISSING IN PLAY MODE
SET TO PLAY MODE
CHECK IC101-27 SIGNAL RF
NO
CHECK IC101 & DRUM FPC
YES
CHECK IC101-24 SIGNAL RF
NO
CHECK Q126, Q127 CIRCUIT
C
YES
CHECK IC101-22 SIGNAL RF
NO
CHECK IC101 CIRCUIT
YES
CHECK C242 SIGNAL RF
NO
CHECK PB RF EQ CIRCUIT
YES
B
C
CHECK IC200-10 SIGNAL PB RF
NO
CHECK C241
YES
CHECK IC200-38 SIGNAL C
NO
CHECK IC200-17, 18, 16
YES
CHECK IC200-36 SIGNAL C
NO
CHECK IC450
YES
CHECK IC200-39 SIGNAL C
NO
CHECK IC200-31
YES
CHECK IC300-5 SIGNAL C
NO
CHECK C223, R242, R243, C300
YES
CHECK IC300 CIRCUIT

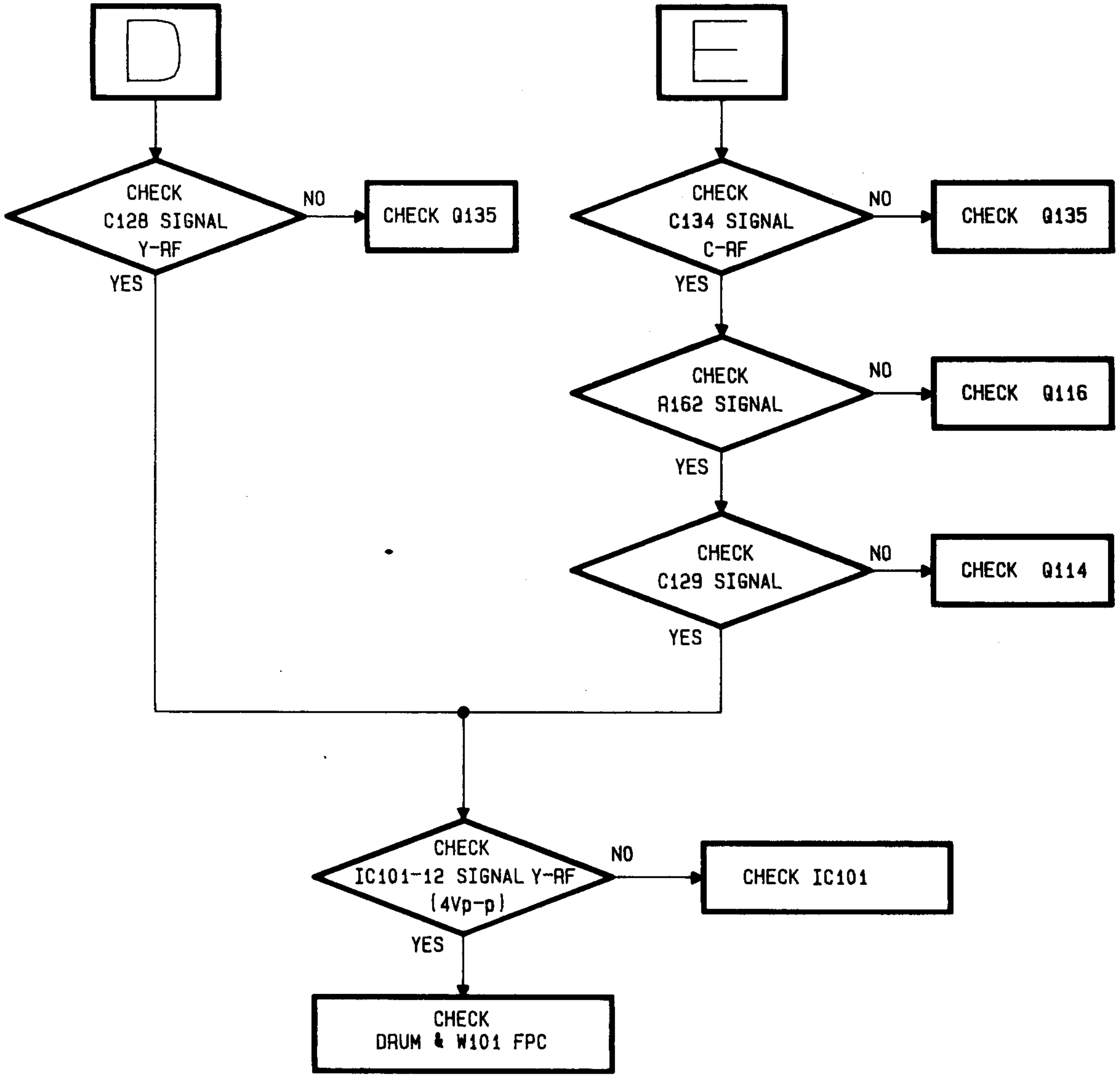

B
CHECK IC200-8 SIGNAL PB RF
NO
CHECK C242
YES
CHECK IC200-56 SIGNAL Y
NO
CHECK IC200-60, 62, 63
YES
CHECK IC200-55 SIGNAL Y
NO
CHECK FL201, FL202, Q205
YES
CHECK IC200-51 SIGNAL Y
NO
CHECK IC200-48, 33, 46
YES
CHECK IC300-15 SIGNAL Y
NO
CHECK IC304
YES
CHECK R303 SIGNAL Y+C
NO
CHECK IC300
YES
CHECK A/V-JACK


VCR REC DOES NOT OPERATE
SET THE IN/OUT SWITCH TO IN KEY & INPUT SIGNAL TO A/V-JACK
CHECK IC200-49 SIGNAL Y+C
NO
CHECK CE203 & A/V-JACK
YES
CHECK IC200-56 SIGNAL Y
NO
CHECK IC200-50
YES
CHECK IC200-55 SIGNAL Y
NO
CHECK FL201, FL202, Q205
YES
CHECK IC200-9 SIGNAL Y-RF
NO
CHECK IC200-3, 4, 6
YES
D


VCR REC COLOR DOES NOT OPERATE
SET THE IN/OUT SWITCH TO IN KEY & INPUT SIGNAL TO A/V-JACK
CHECK IC200-49 SIGNAL Y+C
NO
CHECK CE203 & A/V-JACK
YES
CHECK IC200-36 SIGNAL C
NO
CHECK IC450
YES
CHECK IC200-13 SIGNAL C-RF
NO
CHECK IC200
YES
E


CAMERA REC DOES NOT OPERATE
SET THE CAM/VTR SWITCH TO CAM KEY
CHECK IC200-44 SIGNAL Y
NO
CHECK CAM BLOCK & FPC
YES
CHECK IC200-56 SIGNAL Y
NO
CHECK IC200-50
YES
CHECK IC200-55 SIGNAL Y
NO
CHECK FL201, FL202, Q205
YES
CHECK IC200-9 SIGNAL Y-RF
NO
CHECK IC200-3, 4, 6
YES
D


CAMERA REC COLOR DOES NOT OPERATE
SET THE CAM/VTR SWITCH TO CAM KEY
CHECK IC200-40 SIGNAL C
NO
CHECK CAM BLOCK & FPC
YES
CHECK IC200-13 SIGNAL C-RF
NO
CHECK IC200
YES
E


D
CHECK C128 SIGNAL Y-RF
NO
CHECK Q135
YES
E
CHECK C134 SIGNAL C-RF
NO
CHECK Q135
YES
CHECK R162 SIGNAL
NO
CHECK Q116
YES
CHECK C129 SIGNAL
NO
CHECK Q114
YES
CHECK IC101-12 SIGNAL Y-RF (4Vp-p)
NO
CHECK IC101
YES
CHECK DRUM & W101 FPC

6. CHIP REPLACEMENT

6-1. PRECAUTION FOR THE CHIP REPLACEMENT

1. Do not touch the part directly with the soldering iron. ICs, especially TSOP, are easily damaged by heat.
2. Use care regarding the soldering iron tip. Avoid rapidly heating parts: some parts can be damaged by sudden heating. Preheat the part to about 100℃ for several minutes before installing it.
3. Use soldering tip temperature of about 240℃ on larger parts, use a slightly higher temperature (about 280℃).
4. The thin (0.3mm) solder for miniature parts. Supplementary flux is thus needed in most cases.

☞ **A/V systems are manufactured using flux which is cleaned by water in the factory. When you replace the part or troubleshooting, use proper flux and solder which can be cleaned by water. Soldering area will corrode if proper flux and solder are not used during replacement. This may cause a fatal error to the system.**

5. Use care not to damage the foil pattern, especially when removing.
6. Because of the many pins, cleanliness of the foil pattern is extremely important after removing the IC.
7. Use care to avoid solder bridges. Remove any that occur.
8. Position the part carefully. This will affect the soldering operation. Be very precise in positioning the IC. Soldering opposite pins first holds the IC in place and makes soldering the other pins easier.
9. Do not reuse removed parts.
10. Check for solder joints, especially miniature parts with small leads.
11. A defective trimming resistor cannot be adjusted externally. Replace with an ordinary variable resistor.
12. It is important to inspect the work with a magnifier. Check after installing (cold solder joints, etc).

6-2. TOOLS FOR THE CHIP REPLACEMENT

The tools for chip replacement include the following:

1. Thin tip type soldering iron
2. Small flat-blade tip type soldering iron
3. Special desoldering tip iron
4. Airblower unit
5. Flat Package Pick-up
6. Flux can be cleaned by water
7. 0.3mm thin solder can be cleaned by water
8. Desoldering wire
9. Tweezers

6-3. CHIP RESISTORS AND CHIP CAPACITORS

6-3-1. Type of Parts

The type of chip resistors and chip capacitors are as follows.

1. Thick Film Chip Resistors
2. Carbon Film Chip Resistors
3. Metal Film Chip Resistors
4. Chip Ceramic Capacitors
5. Chip Trimming Resistors

6-3-2. Removing the Part

Using two soldering irons ;

1. Use thin tip soldering irons.
2. Use soldering tip temperature of about 280℃.
3. Simultaneously heat both ends of the part.
4. While heating, grasp the part with the tips of the soldering iron to remove.
5. Use desoldering wire to completely remove the old solder.
6. A clean foil pattern for the new part is very important.

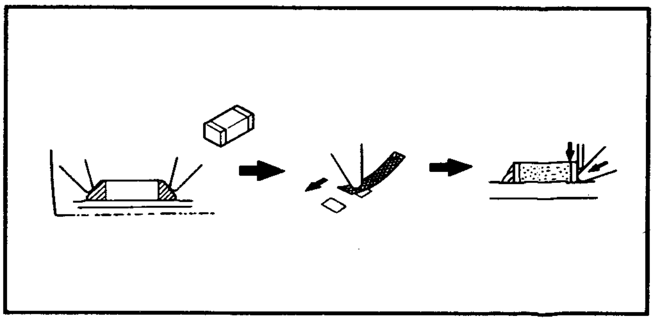


Fig. 1

6-3-3. Installing the Part

1. Clean the area where the new part is to be mounted.
2. Apply flux.
3. Set part correctly into position and prevent it from shifting.
4. Bring the soldering iron tip close to the part contact without actually touching it. Melt thin (0.3mm) solder between the tip and part so that it flows into the part contact.
5. Check work with a magnifier.

6-4. CHIP TANTALUM CAPACITORS AND CHIP FILTERS

6-4-1. Type of Parts

The type of chip tantalum capacitors and chip filters are as follows.

1. Chip Inductors
2. Chip Tantalum Capacitors
3. Chip Tantalum Electrolytic Capacitors
4. Chip Aluminum Electrolytic Capacitors
5. Chip Transformers
6. Chip Filters

6-4-2. Removing the Part

1. Using special desoldering iron ;

1) Select soldering tip according to part size.
2) When the solder melts, remove the part
3) Bring the tip into contact with the soldered points.
4) Remove the old solder with desoldering wire.

2. Using two soldering irons ;

1) Use small flat-blade tips.
2) Heat both ends of the part simultaneously.
3) When the solder melts, grasp and remove the part with the soldering iron tips.
4) Remove the old solder with desoldering wire.

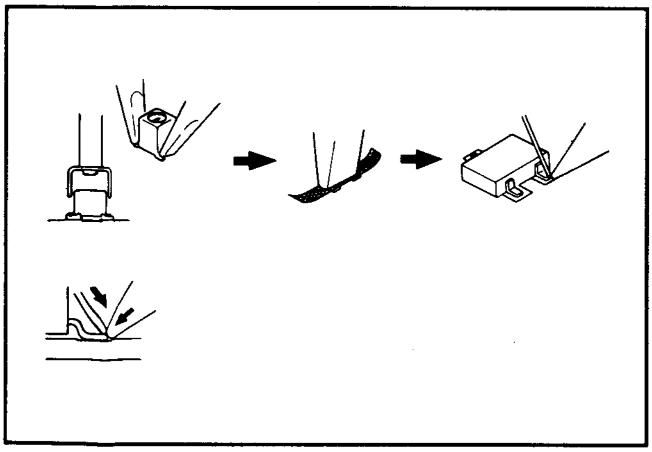


Fig. 2

6-4-3. Installing the Part

1. Clean the area where the new part is to be mounted.
2. Apply flux.
3. Set part correctly into position and prevent it from shifting.
4. Use sharp soldering iron tip. Bring it close to the part contact without actually touching. Melt thin solder between the tip and part so that it flows into the part contact.
5. Check work with a magnifier.

6-5. CHIP VRs, CHIP TRIMMER CAPACITORS, DIODES AND TR.

6-5-1. Type of Parts

The type of the part is as follows.

1) Chip VRs
2) Chip Trimmer Capacitors
3) Diode
4) Transistors

6-5-2. Removing the Part

Using two soldering irons ;

1. Use small flat-blade tips.
2. Heat the leads of the part simultaneously.
3. When the solder melts, grasp and remove the part with the soldering iron tips.
4. Remove the old solder with desoldering wire.

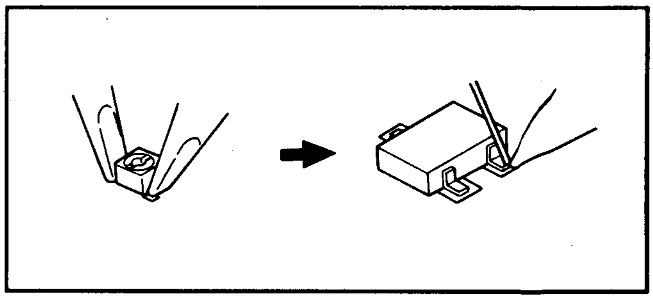


Fig. 3

6-5-3. Installing the Part

1. Clean the area where the new part is to be mounted.
2. Apply flux.
3. Set part correctly into position and prevent it from shifting.
4. Use sharp soldering iron tip. Bring it close to the part contact without actually touching. Melt thin solder between the tip and part so that it flows into the part contact.

6-6. CHIP ICs

6-6-1. Type of Chip ICs

The type of the Chip ICs are as follows ;

1. SOP(Small Outline Package) IC
2. SSOP(Shrink Small Outline Package) IC
3. VSOP(Very Small Outline Package) IC
4. QFP(Quad Flat Package) IC
5. VQFP(Very Quad Flat Package) IC
6. PLCC(Plastic Leaded Chip Carrier) IC
7. TSOP(Thin Small Outline Package) IC

6-6-2. Removing the Part

1. Using special desoldering iron ;

1) Select the tip according to the size and shape of the IC.
2) "Tin"the tip with a small amount of the IC leads.
3) Set the tip squarely over the IC leads.
4) When the solder melts, carefully twist the iron.
5) Raise and remove the IC.

2. Using shaped airblower unit ;

1) Select the correct nozzle.
2) Select the temperature and airblow.
   (suggested : temperature : 7, airblow : 4)
3) Engage the IC removing tool
4) Use the airblow to preheat the IC for about 5 seconds, then heat with the nozzle until the IC remover lifts the part from the board.

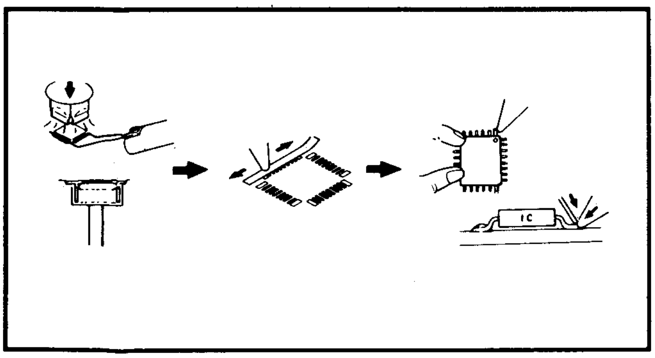


Fig. 4

6-6-3. Installing the Part

1. Use desoldering wire to remove the previous solder.
2. Clean the location.
3. Apply flux.
4. Position the IC and solder two pins at opposite sides.
5. Use a sharp tipped soldering iron and carefully solder each pin. (After gaining experience, a thicker tip can be used for better work efficiency).
6. Remove any solder bridges with desoldering wire.
7. Inspect the work with a magnifier.

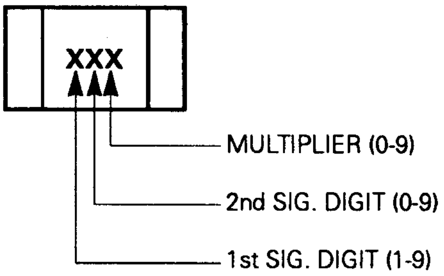
6-7. HOW TO READ LEADLESS (CHIP) COMPONENT VALUES

6-7-1. Check the followings before SMD Troubleshooting

- Cracked or Chipped Component Body
- Cracked or Separated Solder Joints
- Peeling end Terminations or Fractured Leads
- Rejection of Solder from Copper Pads or Component
- Foreign Matter on Copper Pads
- Solder Bridges

6-7-2. SMD (Surface Mounted Device) Identification

1) Standard Chip Resistor Code


XXX
MULTIPLIER (0-9)
2nd SIG. DIGIT (0-9)
1st SIG. DIGIT (1-9)

Examples

123 = 12 x 103 (1000) = 12000 Ω
= 12K Ω

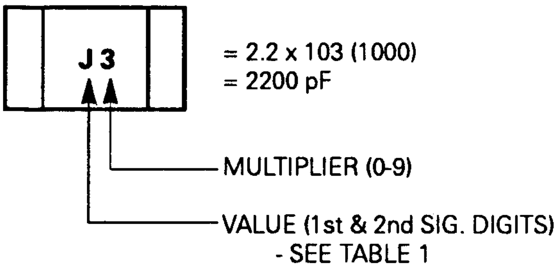
470 = 47 x 100 (1) = 47 Ω

000 = CHIP JUMPER = 0 Ω

1. Chip Resistor Identification

2. Chip Capacitor Identification

1) Standard Two Place Code


J3
MULTIPLIER (0-9)
VALUE (1st & 2nd SIG. DIGITS)
- SEE TABLE 1

= 2.2 x 103 (1000)
= 2200 pF

Examples

S2 = 4.7 x 100 = 470 pF

b0 = 3.5 x 1.0 = 3.5 pF

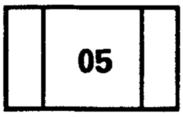
Note : Ceramic chip capacitors have no marking.

VALUE (33 VALUE SYMBOLS) - UPPER AND LOWER CASE LETTERS					**MULTIPLIER**
A — 1.0	H — 2.0	b — 3.5	f — 5.0	X — 7.5	0 = × 1.0
B — 1.1	J — 2.2	p — 3.6	T — 5.1	t — 8.0	1 = × 10
C — 1.2	K — 2.4	Q — 3.9	U — 5.6	Y — 8.2	2 = × 100
D — 1.3	a — 2.5	d — 4.0	m — 6.0	y — 9.0	3 = × 1000
E — 1.5	L — 2.7	R — 4.3	V — 6.2	Z — 9.1	4 = × 10000
F — 1.6	M — 3.0	e — 4.5	W — 6.8		5 = × 100000 etc.
G — 1.8	N — 3.3	S — 4.7	n — 7.0		

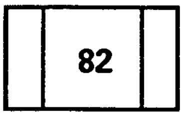
--- **TABLE 1** ---

2) Alternate Two Place Code

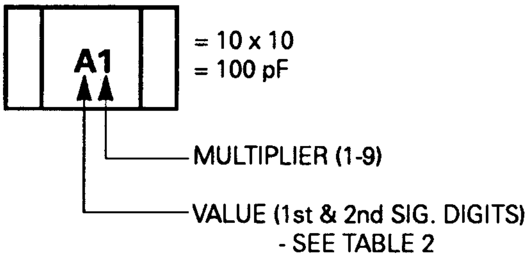
- Values below 100 pF - Value Read Directly
- Values 100 pF and above - Letter / Number Code



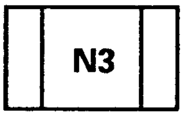
= 5 pF



= 82 pF


A1
MULTIPLIER (1-9)
VALUE (1st & 2nd SIG. DIGITS)
- SEE TABLE 2

= 10 x 10
= 100 pF

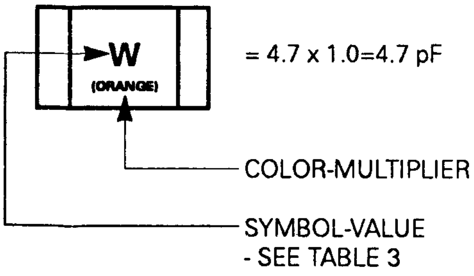


= 33 x 1000
= 33000 pF
= 0.33 uF

VALUE (24 VALUE SYMBOLS) - UPPER CASE LETTERS ONLY					MULTIPLIER
A — 10	F — 16	L — 27	R — 43	W — 68	1 = x 10
B — 11	G — 18	M — 30	S — 47	X — 75	2 = x 100
C — 12	H — 20	N — 33	T — 51	Y — 82	3 = x 1000
D — 13	J — 22	P — 36	U — 56	Z — 91	4 = x 10000
E — 15	K — 24	Q — 39	V — 62		5 = x 100000 etc.

--- **TABLE 2** ---

3) Standard Single Place Code


W
(ORANGE)
COLOR-MULTIPLIER
SYMBOL-VALUE
- SEE TABLE 3

= 4.7 x 1.0=4.7 pF

Examples

R (Green) = 3.3 x 100 = 330 pF

7 (Blue) = 8.2 x 1000 = 8200 pF

VALUE (24 VALUE SYMBOLS) - UPPER CASE LETTERS & NUMERALS					MULTIPLIER
A — 1.0	H — 1.6	N — 2.7	V — 4.3	3 — 6.8	ORANGE = x 1.0
B — 1.1	I — 1.8	O — 3.0	W — 4.7	4 — 7.5	BLACK = x 10
C — 1.2	J — 2.0	R — 3.3	X — 5.1	7 — 8.2	GREEN = x 100
D — 1.3	K — 2.2	S — 3.6	Y — 5.6	9 — 9.1	BLUE = x 1000
E — 1.5	L — 2.4	T — 3.9	Z — 6.2		VIOLET = x 10000
					RED = x 100000

--- **TABLE 3** ---

7. ELECTRICAL PARTS LIST

Loca. No	Part No	Description & Specification	Remark
173	**69063-214-597**	**ASSY DC/DC BOARD**	
C902	B1100-0674	C-CERAMIC,CHIP;CK 73 Y5V 16V T 685-Z C3225	
C904	A1100-0675	C-CERAMIC,CHIP;CK 73 Y5V 16V T 225-Z C2012	
C906	B1100-0674	C-CERAMIC,CHIP;CK 73 Y5V 16V T 685-Z C3225	
C907	61454-154-222	C-CERAMIC CHIP;1608 B1H 222KT	
C908	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C909	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C910	61454-154-222	C-CERAMIC CHIP;1608 B1H 222KT	
C911	61454-154-682	C-CERAMIC CHIP;C1608 B1H 682KT	
C916	B1100-0752	C-CERAMIC,CHIP;CK 73 Y5V 25V T 105-Z C3216 C3216Y5	
C917	B1100-0752	C-CERAMIC,CHIP;CK 73 Y5V 25V T 105-Z C3216 C3216Y5	
C918	A1100-0675	C-CERAMIC,CHIP;CK 73 Y5V 16V T 225-Z C2012	
C919	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C920	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C921	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C923	61454-158-473	C-CERAMIC CHIP;C1608 JB1C 473KT	
C926	61454-154-821	C-CERAMIC CHIP;C1608JB1H 821KT	
C927	61454-153-820	C-CERAMIC CHIP;C1608 CH1H820JT	
C932	61454-153-181	C-CERAMIC CHIP;C1608 CH1H181JT	
C933	61454-153-120	C-CERAMIC CHIP;C1608 CH1H120JT	
C936	61454-153-220	C-CERAMIC CHIP;C1608 CH1H220JT	
C937	61454-153-120	C-CERAMIC CHIP;C1608 CH1H120JT	
C941	B1100-0674	C-CERAMIC,CHIP;CK 73 Y5V 16V T 685-Z C3225	
C942	61454-153-820	C-CERAMIC CHIP;C1608 CH1H820JT	
C943	61454-154-821	C-CERAMIC CHIP;C1608JB1H 821KT	
C944	A1100-0675	C-CERAMIC,CHIP;CK 73 Y5V 16V T 225-Z C2012	
C947	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C948	A1100-0675	C-CERAMIC,CHIP;CK 73 Y5V 16V T 225-Z C2012	
C949	61454-154-682	C-CERAMIC CHIP;C1608 B1H 682KT	
C951	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C952	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C953	A1106-0016	C-TANTALUM,CHIP;CS 10V T 106-M C3528 SCS1A106MR-B	
CE914	61619-911-229	C-ELEC.CHIP;UWX1H2R2 MCR2GB PI3 2.2U/50V	
CE915	61619-911-229	C-ELEC.CHIP;UWX1H2R2 MCR2GB PI3 2.2U/50V	
CN901	B6012-0245	CONNECTOR-HOUSING;52588-4090 WHT MOLEX	
CN902	B6010-0893	CONNECTOR-HOUSING;SD-52357-0691 WHT	
CT901	A1106-0016	C-TANTALUM,CHIP;CS 10V T 106-M C3528 SCS1A106MR-B	
CT902	A1106-0016	C-TANTALUM,CHIP;CS 10V T 106-M C3528 SCS1A106MR-B	
CT912	A1106-0149	C-TANTALUM,CHIP;CS 10V T 475-M C3216	
CT922	A1106-0025	C-TANTALUM,CHIP;CS 20V T 105-M C3216 SCS1D105MR-A	
CT924	A1106-0025	C-TANTALUM,CHIP;CS 20V T 105-M C3216 SCS1D105MR-A	
CT925	A1106-0025	C-TANTALUM,CHIP;CS 20V T 105-M C3216 SCS1D105MR-A	
CT929	A1106-0016	C-TANTALUM,CHIP;CS 10V T 106-M C3528 SCS1A106MR-B	
CT930	A1106-0150	C-TANTALUM,CHIP;CS 6.3V T 226-M C3528 SCS0J226MR-B	
CT931	A1106-0150	C-TANTALUM,CHIP;CS 6.3V T 226-M C3528 SCS0J226MR-B	
CT932	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
CT935	A1106-0016	C-TANTALUM,CHIP;CS 10V T 106-M C3528 SCS1A106MR-B	
CT939	A1106-0016	C-TANTALUM,CHIP;CS 10V T 106-M C3528 SCS1A106MR-B	
CT940	A1106-0016	C-TANTALUM,CHIP;CS 10V T 106-M C3528 SCS1A106MR-B	
CT945	A1106-0150	C-TANTALUM,CHIP;CS 6.3V T 226-M C3528 SCS0J226MR-B	
CT946	A1106-0016	C-TANTALUM,CHIP;CS 10V T 106-M C3528 SCS1A106MR-B	
D901	62169-106-011	DIODE-ZENER.CHIP;RD-12M T1B	
D903	62169-901-077	DIODE.CHIP;MA110-(TX)	
D904	62169-901-103	DIODE CHIP;IMN10(T108)	
D905	A4114-0013	DIODE-ARRAY,CHIP;DA204K(T146) 20V 10MA 4.0NS 20V C	
D906	A4114-0013	DIODE-ARRAY,CHIP;DA204K(T146) 20V 10MA 4.0NS 20V C	
D907	B4112-0022	DIODE-SCHOTTKY,CHIP;EC10QS04-TE12R 40V 1A T	

Loca. No	Part No	Description & Specification	Remark
IC901	B4008-0969	IC-S/W REGU;TL1455C 5CH DIP	
L901	B1160-0013	INDUCTOR,CHIP;1UH-M 73 NLC322522T-1R0M C3225	
L902	B1160-0013	INDUCTOR,CHIP;1UH-M 73 NLC322522T-1R0M C3225	
L903	B1160-0013	INDUCTOR,CHIP;1UH-M 73 NLC322522T-1R0M C3225	
L904	B1160-0018	INDUCTOR,CHIP;3.3UH-M 73 NLC322522T-3R3M C3225	
L906	B1160-0066	INDUCTOR,CHIP;8R2UH-K T NLC453232T-8R2K C4532 T	
L909	B1160-0019	INDUCTOR,CHIP;330UH-K 73 NLC322522T-331K C3225	
L910	B1160-0019	INDUCTOR,CHIP;330UH-K 73 NLC322522T-331K C3225	
L911	B1160-0019	INDUCTOR,CHIP;330UH-K 73 NLC322522T-331K C3225	
L912	B1160-0018	INDUCTOR,CHIP;3.3UH-M 73 NLC322522T-3R3M C3225	
L913	B1144-0053	COIL-CHIP;CHOKE SLF7032T-220MR96 22UH-M T 0.96A	
L914	B1144-0055	COIL-CHIP;CHOKE SLF7032T-221MR31 220UH-M T 0.31A	
L915	B1144-0055	COIL-CHIP;CHOKE SLF7032T-221MR31 220UH-M T 0.31A	
L916	B1144-0023	COIL-CHIP;CHOKE 646CY-220M(22UH) 22UH-M T	
L917	B1160-0011	INDUCTOR,CHIP;10UH-K 73 NLC322522T-100K C3225	
L918	B1160-0018	INDUCTOR,CHIP;3.3UH-M 73 NLC322522T-3R3M C3225	
L919	B1160-0011	INDUCTOR,CHIP;10UH-K 73 NLC322522T-100K C3225	
L920	B1160-0018	INDUCTOR,CHIP;3.3UH-M 73 NLC322522T-3R3M C3225	
L921	B1160-0018	INDUCTOR,CHIP;3.3UH-M 73 NLC322522T-3R3M C3225	
L922	B1160-0018	INDUCTOR,CHIP;3.3UH-M 73 NLC322522T-3R3M C3225	
L923	B1160-0066	INDUCTOR,CHIP;8R2UH-K T NLC453232T-8R2K C4532 T	
L925	B1160-0011	INDUCTOR,CHIP;10UH-K 73 NLC322522T-100K C3225	
L926	B1160-0011	INDUCTOR,CHIP;10UH-K 73 NLC322522T-100K C3225	
L927	B1144-0055	COIL-CHIP;CHOKE SLF7032T-221MR31 220UH-M T 0.31A	
PS901	B3065-0167	FUSE;FSF 125V 2.0A 6.1MM UL/CSA 451002 C	⚠
PS902	B3065-0167	FUSE;FSF 125V 2.0A 6.1MM UL/CSA 451002 C	⚠
Q901	A4050-0128	TR-GENERAL,CHIP;DTC124EU(T106) 200MW 100MA 250MHZ	
Q903	A4050-0128	TR-GENERAL,CHIP;DTC124EU(T106) 200MW 100MA 250MHZ	
Q904	62129-304-014	TRANSISTOR-CHIP;IMB2(T110)	
Q907	A4050-0123	TR-GENERAL,CHIP;DTA144EU(T108) 200MW 100MA 250MHZ	
Q908	A4050-0128	TR-GENERAL,CHIP;DTC124EU(T106) 200MW 100MA 250MHZ	
Q909	62129-304-014	TRANSISTOR-CHIP;IMB2(T110)	
Q910	A4050-0098	TR-GENERAL,CHIP;2SB1302 1.3W 5A 320MHZ 25V SI/PNP	
Q911	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q912	B4056-0032	TR-SWITCHING;FP101 1.3W 150MHZ SI/PNP T	
Q913	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q914	B4056-0032	TR-SWITCHING;FP101 1.3W 150MHZ SI/PNP T	
Q915	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q916	62129-301-120	TRANSISTOR.CHIP;2SB 1121(REEL)T-TC	
Q917	B4056-0031	TR-SWITCHING;FP102 1.3W 400MHZ SI/PNP T	
Q918	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q919	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
R901	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R902	61079-918-822	R-CHIP;RH C1608 CS 822-J	
R903	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R904	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R905	61079-918-124	R-CHIP;RH C1608 CS 124-J	
R906	B1020-0699	R-CHIP;RH 1/16 CS 472-D C1608 RR0816P-472-D	
R907	B1020-0699	R-CHIP;RH 1/16 CS 472-D C1608 RR0816P-472-D	
R908	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R909	61079-918-124	R-CHIP;RH C1608 CS 124-J	
R910	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R911	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R912	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R913	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R914	61079-918-124	R-CHIP;RH C1608 CS 124-J	
R915	61079-918-333	R-CHIP;RH C1608 CS 333-J	
R918	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R919	61079-918-223	R-CHIP;RH C1608 CS 223-J	

Loca. No	Part No	Description & Specification	Remark
R920	61079-918-273	R-CHIP;RH C1608 CS 273-J	
R921	61079-918-221	R-CHIP;RH C1608 CS 221-J	
R922	A1020-0430	R-CHIP;RH 1/16 CS 203-J C1608 RMC 1/16 20K-J	
R923	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R924	61079-917-331	R-CHIP;RH C2012 CS 331-J	
R925	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R926	61079-918-272	R-CHIP;RH C1608 CS 272-J	
R929	B1020-0701	R-CHIP;RH 1/16 CS 822-D C1608 RR0816P-822-D	
R930	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R931	61079-918-183	R-CHIP;RH C1608 CS 183-J	
R932	61079-917-681	R-CHIP;RH C2012 CS 681-J	
R933	61079-918-562	R-CHIP;RH C1608 CS 562-J	
R934	61079-918-182	R-CHIP;RH C1608 CS 182-J	
R939	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R940	61079-918-562	R-CHIP;RH C1608 CS 562-J	
R941	61079-918-182	R-CHIP;RH C1608 CS 182-J	
R942	61079-917-681	R-CHIP;RH C2012 CS 681-J	
R943	61079-918-183	R-CHIP;RH C1608 CS 183-J	
R944	61079-918-272	R-CHIP;RH C1608 CS 272-J	
R945	61079-918-333	R-CHIP;RH C1608 CS 333-J	
R946	61079-918-822	R-CHIP;RH C1608 CS 822-J	
R947	61079-917-102	R-CHIP;RH C2012 CS 102-J	
R948	A1020-0430	R-CHIP;RH 1/16 CS 203-J C1608 RMC 1/16 20K-J	
R949	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R950	61079-917-471	R-CHIP;RH C2012 CS 471-J	
R951	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R952	61079-918-272	R-CHIP;RH C1608 CS 272-J	
R953	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R954	61079-918-181	R-CHIP;RH C1608 CS 181-J	
R962	61079-217-000	R-CHIP;RH C3216 CS 000-J	
SW901	B3018-0025	SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY	
T901	67189-0040-00	CONVERTER-COIL;CMS64 6319-JPS-010	⚠
VR901	B1056-0044	VR-SEMI CHIP;EVM1SSX50B13 1KB CERMET	
VR902	B1056-0044	VR-SEMI CHIP;EVM1SSX50B13 1KB CERMET	
164	**69063-214-723**	**ASSY VCR MAIN BOARD;VP-H66 PAL**	
		SYSTEM CONTROL PARTS	
C501	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C502	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C503	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C504	61454-154-472	C-CERAMIC CHIP;C1608 JB1H 472KT	
C505	61454-155-223	C-CERAMIC CHIP;C1608 JB1C 223KT	
C506	61454-155-223	C-CERAMIC CHIP;C1608 JB1C 223KT	
C507	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
C508	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
C509	61454-158-473	C-CERAMIC CHIP;C1608 JB1C 473KT	
C510	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C511	61454-158-473	C-CERAMIC CHIP;C1608 JB1C 473KT	
C512	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C513	61454-154-682	C-CERAMIC CHIP;C1608 B1H 682KT	
C514	61454-153-391	C-CERAMIC CHIP;C1608 JB1H 391KT	
C515	A1106-0150	C-TANTALUM,CHIP;CS 6.3V T 226-M C3528 SCS0J226MR-B	
C520	61454-158-473	C-CERAMIC CHIP;C1608 JB1C 473KT	
C521	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C522	B1100-0779	C-CERAMIC-CHIP;CK 73 Y5V 16V T 334-Z C1608 GRM39Y5	
C523	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
C524	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
C525	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
C526	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
C527	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
C529	A1106-0064	C-TANTALUM,CHIP;CS 10V T 475-M C3528 SCN1A475MR-B	

Loca. No	Part No	Description & Specification	Remark
C530	A1100-0046	C-CERAMIC,CHIP;CK 73 Y5V 50V T 224-Z C3216 31F 224	
C531	A1100-0046	C-CERAMIC,CHIP;CK 73 Y5V 50V T 224-Z C3216 31F 224	
C532	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C533	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C534	61454-154-332	C-CERAMIC CHIP;C1608 B1H 332KT	
C535	61454-154-332	C-CERAMIC CHIP;C1608 B1H 332KT	
C536	61454-154-332	C-CERAMIC CHIP;C1608 B1H 332KT	
C537	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C538	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C539	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
C540	61454-154-561	C-CERAMIC CHIP;C1608 B1H 561KT	
C541	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C542	A1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012 C2012Y5	
C544	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
C545	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
C546	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C547	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
C548	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
C549	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
C550	61454-154-682	C-CERAMIC CHIP;C1608 B1H 682KT	
C561	61454-154-561	C-CERAMIC CHIP;C1608 B1H 561KT	
C562	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C563	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C570	61454-154-561	C-CERAMIC CHIP;C1608 B1H 561KT	
C571	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C580	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
C581	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C601	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C602	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C603	A1106-0127	C-TANTALUM,CHIP;CS 6.3V T 107-M C7343	
C604	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C605	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C606	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C607	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C608	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C609	61454-153-330	C-CERAMIC CHIP;C1608 CH1H330JT	
C610	61454-153-220	C-CERAMIC CHIP;C1608 CH1H220JT	
C611	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C613	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
C615	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
C616	61454-153-120	C-CERAMIC CHIP;C1608 CH1H120JT	
C617	61454-153-120	C-CERAMIC CHIP;C1608 CH1H120JT	
C618	61454-154-561	C-CERAMIC CHIP;C1608 B1H 561KT	
C619	61454-154-561	C-CERAMIC CHIP;C1608 B1H 561KT	
C620	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C633	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C634	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C635	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C641	61454-154-222	C-CERAMIC CHIP;1608 B1H 222KT	
C643	A1106-0071	C-TANTALUM,CHIP;CS 16V T 105-M C3216 SCN1C105MR-A	
C649	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C650	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C651	61454-154-561	C-CERAMIC CHIP;C1608 B1H 561KT	
C652	61454-154-561	C-CERAMIC CHIP;C1608 B1H 561KT	
C656	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C672	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C673	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C680	61454-155-223	C-CERAMIC CHIP;C1608 JB1C 223KT	
CN601	B6010-1558	CONNECTOR-WAFER;SD-53268-0891 WHT MOLEX	

Loca. No	Part No	Description & Specification	Remark
CN602	B6010-1557	CONNECTOR-WAFER;SD-53309-4091 WHT MOLEX	
CN603	B6012-0247	CONNECTOR-HOUSING;5-175635-4 BLK AMP	
CN604	B6012-0197	CONNECTOR-HOUSING;SD-52465-1491 WHT	
CTP01	B6012-0230	CONNECTOR-HOUSING;52357-1691 WHT	
IC501	A4004-0197	IC-LOGIC;KA8322 QFP	
IC502	B4008-0916	IC-DRIVE;TPIC1327DF SOP	
IC503	B4008-0870	IC;LB1851M QFP	
IC504	B4004-0198	IC-LOGIC;BA6285FS SOP	
IC505	B4012-0455	IC-LINEAR;CXA1512N SSOP BULK MOTOR SENSE AMP	
IC506	B4008-1128	IC-OP AMP;TA75S01F(TE85L) QFP	
IC601	67199-0330-00	MICOM;CXP80732-161Q VP-H66 QFP SONY	
IC602	B4008-1038	IC;S-8420BF-T1 SOP	
L601	B1160-0010	INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225	
L602	B1160-0010	INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225	
L603	B1160-0011	INDUCTOR,CHIP;10UH-K 73 NLC322522T-100K C3225	
Q601	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q602	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q603	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q604	A4050-0123	TR-GENERAL,CHIP;DTA144EU(T108) 200MW 100MA 250MHZ	
Q605	A4050-0131	TR-GENERAL,CHIP;DTC114EU(T106) 200MW 100M 250MHZ 5	
Q611	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
R503	61079-918-154	R-CHIP;RH C1608 CS 154-J	
R509	61079-918-474	R-CHIP;RH C1608 CS 474-J	
R510	61079-918-474	R-CHIP;RH C1608 CS 474-J	
R511	61079-918-393	R-CHIP;RH C1608 CS 393-J	
R512	61079-918-223	R-CHIP;RH C1608 CS 223-J	
R513	61079-918-684	R-CHIP;RH C1608 CS 684-J	
R514	61079-918-152	R-CHIP;RH C1608 CS 152-J	
R515	61079-918-152	R-CHIP;RH C1608 CS 152-J	
R516	61079-918-183	R-CHIP;RH C1608 CS 183-J	
R518	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R519	61079-918-471	R-CHIP;RH C1608 CS 471-J	
R520	61079-918-183	R-CHIP;RH C1608 CS 183-J	
R522	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R523	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R524	61079-918-224	R-CHIP;RH C1608 CS 224-J	
R525	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R527	61079-918-394	R-CHIP;RH C1608 CS 394-J	
R528	61079-918-334	R-CHIP;RH C1608 CS 334-J	
R529	A1020-0679	R-CHIP;RH 1/16 CS 823-F C1608	
R530	61079-918-153	R-CHIP;RH C1608 CS 153-J	
R531	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R532	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R533	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R534	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R535	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R536	61079-918-392	R-CHIP;RH C1608 CS 392-J	
R537	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R538	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R539	61079-918-223	R-CHIP;RH C1608 CS 223-J	
R540	61079-918-682	R-CHIP;RH C1608 CS 682-J	
R541	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R542	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R543	61079-918-273	R-CHIP;RH C1608 CS 273-J	
R544	61079-918-273	R-CHIP;RH C1608 CS 273-J	
R545	61079-918-273	R-CHIP;RH C1608 CS 273-J	
R546	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R547	61079-916-333	R-CHIP;RH C2012 CS 333-F	
R548	61079-916-122	R-CHIP;RH C2012 CS 122-F	

Loca. No	Part No	Description & Specification	Remark
R549	61079-918-331	R-CHIP;RH C1608 CS 331-J	
R550	61079-917-010	R-CHIP;RH C2012 CS 010-J	
R551	61079-917-010	R-CHIP;RH C2012 CS 010-J	
R552	61079-917-010	R-CHIP;RH C2012 CS 010-J	
R553	61079-917-010	R-CHIP;RH C2012 CS 010-J	
R554	61079-918-292	R-CHIP;RH C1608 CS 2R2-J	
R555	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R557	61079-918-105	R-CHIP;RH C1608 CS 105-J	
R559	61079-918-292	R-CHIP;RH C1608 CS 2R2-J	
R560	61079-918-292	R-CHIP;RH C1608 CS 2R2-J	
R561	61079-918-272	R-CHIP;RH C1608 CS 272-J	
R562	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R563	61079-918-471	R-CHIP;RH C1608 CS 471-J	
R564	61079-918-823	R-CHIP;RH C1608 CS 823-J	
R565	A1020-0661	R-CHIP;RH 1/16 CS 563-F C1608	
R566	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R568	61079-918-105	R-CHIP;RH C1608 CS 105-J	
R578	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R579	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R580	61079-918-123	R-CHIP;RH C1608 CS 123-J	
R581	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R582	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R583	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R584	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R585	61079-918-273	R-CHIP;RH C1608 CS 273-J	
R586	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R587	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R592	61079-918-682	R-CHIP;RH C1608 CS 682-J	
R593	61079-918-332	R-CHIP;RH C1608 CS 332-J	
R594	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R601	61079-916-334	R-CHIP;RH C2012 CS 334-F	
R602	A1020-0363	R-CHIP;RH 1/10 CS 153-F C2012 MCR/RMC	
R603	61079-916-334	R-CHIP;RH C2012 CS 334-F	
R604	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R605	61079-918-332	R-CHIP;RH C1608 CS 332-J	
R606	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R607	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R608	61079-918-471	R-CHIP;RH C1608 CS 471-J	
R609	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R610	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R613	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R614	61079-918-331	R-CHIP;RH C1608 CS 331-J	
R616	B1020-0712	R-CHIP;RH 1/16 CS 153-D C1608 RR0816P-153-D	
R617	B1020-0703	R-CHIP;RH 1/16 CS 333-D C1608 RR0816P-333-D	
R618	B1020-0714	R-CHIP;RH 1/16 CS 223-D C1608 RR0816P-223-D	
R619	B1020-0705	R-CHIP;RH 1/16 CS 104-D C1608 RR0816R-104-D	
R620	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R622	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R630	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R631	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R638	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R639	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R640	61079-918-333	R-CHIP;RH C1608 CS 333-J	
R641	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R642	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R643	61079-918-391	R-CHIP;RH C1608 CS 391-J	
R645	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R646	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R647	A1020-0593	R-CHIP;RH 1/16 CS 104-F C1608	

Loca. No	Part No	Description & Specification	Remark
R648	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R650	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R651	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R652	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R653	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R655	61079-217-101	R-CHIP;RH C3216 CS 101-J	
R656	61079-918-332	R-CHIP;RH C1608 CS 332-J	
R660	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R661	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R662	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R663	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R664	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R665	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R666	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R667	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R668	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R671	B1020-0714	R-CHIP;RH 1/16 CS 223-D C1608 RR0816P-223-D	
R672	A1020-0453	R-CHIP;RH 1/16 CS 243-J C1608 RMC 1/16 24K-J	
R673	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R674	61079-918-105	R-CHIP;RH C1608 CS 105-J	
R675	61079-918-393	R-CHIP;RH C1608 CS 393-J	
R680	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R681	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R682	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R688	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R691	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R693	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R695	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R697	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RM601	B1018-0042	R-NETWORK;RN 1/16 FV 8P 104-J MNR14-E0-100K-J 3216	
RM605	B1018-0041	R-NETWORK,CHIP;RN 1/16 FV 8P 103-J MNR14-E0-10K-J	
RM606	B1018-0042	R-NETWORK;RN 1/16 FV 8P 104-J MNR14-E0-100K-J 3216	
SW601	B3018-0041	SW-TACT,CHIP;EVQ-QH9-03W 6.2X6.8MM YEL 1KEY	
SW602	B3018-0041	SW-TACT,CHIP;EVQ-QH9-03W 6.2X6.8MM YEL 1KEY	
SW603	B3018-0041	SW-TACT,CHIP;EVQ-QH9-03W 6.2X6.8MM YEL 1KEY	
SW604	B3006-0025	SW-SLIDE;2C3P SH 2.5V SSSS2-S-012	
VR601	B1056-0046	VR-SEMI CHIP;EVM1SSX50B15 100KB CERMET	
VR602	B1056-0053	VR-SEMI CHIP;EVM1SSX50B55 500KB CERMET	
XT601	64539-021-009	CRYSTAL;32.768KHZ	
XT602	B1280-0101	CRYSTAL;11.71875MHZ CX-49F 50PPM	
		PRE-AMP PARTS	
C101	61454-153-390	C-CERAMIC CHIP;C1608 CH1H390JT	
C102	61454-153-330	C-CERAMIC CHIP;C1608 CH1H330JT	
C103	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C106	61454-155-223	C-CERAMIC CHIP;C1608 JB1C 223KT	
C107	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C108	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C109	61454-155-223	C-CERAMIC CHIP;C1608 JB1C 223KT	
C110	61454-155-223	C-CERAMIC CHIP;C1608 JB1C 223KT	
C111	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C112	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C113	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C114	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C115	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C116	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C118	61454-153-101	C-CERAMIC CHIP;C1608 CH1H101JT	
C119	61454-153-050	C-CERAMIC CHIP;C1608 CH1H050CT	
C120	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C121	61454-155-223	C-CERAMIC CHIP;C1608 JB1C 223KT	

Loca. No	Part No	Description & Specification	Remark
C122	61454-153-181	C-CERAMIC CHIP;C1608 CH1H181JT	
C123	61454-153-470	C-CERAMIC CHIP;C1608 CH1H470JT	
C124	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
C126	61454-153-390	C-CERAMIC CHIP;C1608 CH1H390JT	
C127	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C128	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C129	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C130	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C131	61454-153-120	C-CERAMIC CHIP;C1608 CH1H120JT	
C132	61454-153-560	C-CERAMIC CHIP;C1608 CH1H560JT	
C133	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C134	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C135	61454-154-332	C-CERAMIC CHIP;C1608 B1H 332KT	
C136	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C137	61454-153-271	C-CERAMIC CHIP;C1608 CH1H271JT	
C138	61454-153-390	C-CERAMIC CHIP;C1608 CH1H390JT	
C139	61454-154-272	C-CERAMIC CHIP;C1608 B1H 272JT	
C140	61454-153-750	C-CERAMIC CHIP;C1608 CH1H750JT	
C141	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C142	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C143	61454-153-390	C-CERAMIC CHIP;C1608 CH1H390JT	
C144	61454-153-220	C-CERAMIC CHIP;C1608 CH1H220JT	
C145	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C146	61454-153-560	C-CERAMIC CHIP;C1608 CH1H560JT	
C147	61454-153-101	C-CERAMIC CHIP;C1608 CH1H101JT	
C148	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C149	61454-153-050	C-CERAMIC CHIP;C1608 CH1H050CT	
C150	61454-153-180	C-CERAMIC CHIP;C1608 CH1H180JT	
C151	61454-153-270	C-CERAMIC CHIP;C1608 CH1H270JT	
C152	61454-153-101	C-CERAMIC CHIP;C1608 CH1H101JT	
C153	61454-153-330	C-CERAMIC CHIP;C1608 CH1H330JT	
C160	61454-155-223	C-CERAMIC CHIP;C1608 JB1C 223KT	
C162	61454-153-390	C-CERAMIC CHIP;C1608 CH1H390JT	
C163	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CE101	A1106-0071	C-TANTALUM,CHIP;CS 16V T 105-M C3216 SCN1C105MR-A	
CE102	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
CE103	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
CE105	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
IC101	B4012-0393	IC-LINEAR;HA118189MPER-MSP QFP	
L101	62429-962-270	INDUCTOR CHIP;NL322522T 27-J	
L102	B1160-0010	INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225	
L103	B1160-0010	INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225	
L104	62429-962-279	INDUCTOR CHIP;NL322522T 2R7-J	
L105	B1160-0019	INDUCTOR,CHIP;330UH-K 73 NLC322522T-331K C3225	
L106	62429-962-102	INDUCTOR-CHIP;NL322522T 101-J	
L107	62429-962-689	INDUCTOR CHIP;NL322522T 6R8-J	
L108	62429-962-279	INDUCTOR CHIP;NL322522T 2R7-J	
L109	B1160-0037	INDUCTOR,CHIP;330UH-J 73 NL322522T-331J C3225	
L110	62429-962-181	INDUCTOR-CHIP;NL322522T 181-J	
L111	62429-962-220	INDUCTOR-CHIP;NL322522T 221-J	
L112	62429-962-471	INDUCTOR-CHIP;NL453232T 471-J	
L113	62429-962-152	INDUCTOR-CHIP;NL322522T 151-J	
L114	B1160-0030	INDUCTOR,CHIP;10UH-J 73 NL252018T-100J C2520	
L115	62429-962-339	INDUCTOR CHIP;NL322522T 3R3-J	
L116	62429-962-279	INDUCTOR CHIP;NL322522T 2R7-J	
L117	62429-962-100	INDUCTOR-CHIP;NL322522T 100-J	
L118	B1160-0010	INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225	
L119	62429-962-151	INDUCTOR-CHIP;NL322522T 150-J	
L121	B1160-0010	INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225	

Loca. No	Part No	Description & Specification	Remark
L122	62429-962-220	INDUCTOR-CHIP;NL322522T 221-J	
Q101	B4056-0044	TR-SWITCHING,CHIP;UMT2 200MW 1MHZ SI/PNP TR	
Q106	B4056-0044	TR-SWITCHING,CHIP;UMT2 200MW 1MHZ SI/PNP TR	
Q107	B4056-0048	TR-SWITCHING,CHIP;UMD3 200MW 1MHZ SI/PNP TR	
Q108	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q109	B4056-0045	TR-SWITCHING,CHIP;UMX2 200MW 1MHZ SI/NPN TR	
Q110	B4056-0045	TR-SWITCHING,CHIP;UMX2 200MW 1MHZ SI/NPN TR	
Q111	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q112	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
Q114	B4056-0045	TR-SWITCHING,CHIP;UMX2 200MW 1MHZ SI/NPN TR	
Q115	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q116	B4056-0044	TR-SWITCHING,CHIP;UMT2 200MW 1MHZ SI/PNP TR	
Q117	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
Q119	A4050-0120	TR-GENERAL,CHIP;2SA1037K(T146) 200MW 100MA 140MHZ	
Q120	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q121	B4056-0045	TR-SWITCHING,CHIP;UMX2 200MW 1MHZ SI/NPN TR	
Q122	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
Q123	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q124	B4056-0045	TR-SWITCHING,CHIP;UMX2 200MW 1MHZ SI/NPN TR	
Q125	B4056-0045	TR-SWITCHING,CHIP;UMX2 200MW 1MHZ SI/NPN TR	
Q126	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q127	B4056-0046	TR-SWITCHING,CHIP;UMZ1 200MW 1MHZ SI/PNP TR	
Q128	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q129	A4050-0120	TR-GENERAL,CHIP;2SA1037K(T146) 200MW 100MA 140MHZ	
Q130	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
R101	A1020-0575	R-CHIP;RH 1/16 CS 6R8-J C1608 RMC 1/16 6.8-J	
R102	61079-918-471	R-CHIP;RH C1608 CS 471-J	
R103	61079-918-271	R-CHIP;RH C1608 CS 271-J	
R104	61079-918-333	R-CHIP;RH C1608 CS 333-J	
R105	61079-918-683	R-CHIP;RH C1608 CS 683-J	
R109	61079-918-000	R-CHIP;RH C1608 CS 000-J	
R110	61079-918-101	R-CHIP;RH C1608 CS 101-J	
R111	A1020-0573	R-CHIP;RH 1/16 CS 5R6-J C1608 RMC 1/16 5.6-J	
R112	A1020-0573	R-CHIP;RH 1/16 CS 5R6-J C1608 RMC 1/16 5.6-J	
R113	61079-918-101	R-CHIP;RH C1608 CS 101-J	
R114	61079-918-223	R-CHIP;RH C1608 CS 223-J	
R115	61079-918-183	R-CHIP;RH C1608 CS 183-J	
R116	61079-918-332	R-CHIP;RH C1608 CS 332-J	
R117	61079-918-821	R-CHIP;RH C1608 CS 821-J	
R118	61079-918-824	R-CHIP;RH C1608 CS 824-J	
R119	61079-918-221	R-CHIP;RH C1608 CS 221-J	
R120	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R121	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R122	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R123	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R124	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R125	61079-918-273	R-CHIP;RH C1608 CS 273-J	
R127	61079-918-471	R-CHIP;RH C1608 CS 471-J	
R128	61079-918-272	R-CHIP;RH C1608 CS 272-J	
R129	61079-918-272	R-CHIP;RH C1608 CS 272-J	
R130	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R131	61079-918-122	R-CHIP;RH C1608 CS 122-J	
R132	61079-918-000	R-CHIP;RH C1608 CS 000-J	
R133	61079-918-391	R-CHIP;RH C1608 CS 391-J	
R134	61079-918-561	R-CHIP;RH C1608 CS 561-J	
R135	61079-918-271	R-CHIP;RH C1608 CS 271-J	
R136	61079-918-820	R-CHIP;RH C1608 CS 820-J	
R137	61079-918-821	R-CHIP;RH C1608 CS 821-J	
R139	61079-918-392	R-CHIP;RH C1608 CS 392-J	

Loca. No	Part No	Description & Specification	Remark
R140	61079-918-561	R-CHIP;RH C1608 CS 561-J	
R141	61079-918-561	R-CHIP;RH C1608 CS 561-J	
R142	61079-918-471	R-CHIP;RH C1608 CS 471-J	
R143	61079-918-471	R-CHIP;RH C1608 CS 471-J	
R144	61079-918-223	R-CHIP;RH C1608 CS 223-J	
R145	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R146	61079-918-183	R-CHIP;RH C1608 CS 183-J	
R147	61079-918-271	R-CHIP;RH C1608 CS 271-J	
R148	61079-918-332	R-CHIP;RH C1608 CS 332-J	
R149	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R150	61079-918-122	R-CHIP;RH C1608 CS 122-J	
R151	61079-918-821	R-CHIP;RH C1608 CS 821-J	
R152	61079-918-392	R-CHIP;RH C1608 CS 392-J	
R153	61079-918-821	R-CHIP;RH C1608 CS 821-J	
R154	61079-918-223	R-CHIP;RH C1608 CS 223-J	
R155	61079-918-152	R-CHIP;RH C1608 CS 152-J	
R156	61079-918-333	R-CHIP;RH C1608 CS 333-J	
R157	61079-918-561	R-CHIP;RH C1608 CS 561-J	
R158	61079-918-331	R-CHIP;RH C1608 CS 331-J	
R159	61079-918-561	R-CHIP;RH C1608 CS 561-J	
R160	61079-918-561	R-CHIP;RH C1608 CS 561-J	
R162	61079-918-182	R-CHIP;RH C1608 CS 182-J	
R163	61079-918-152	R-CHIP;RH C1608 CS 152-J	
R164	61079-918-683	R-CHIP;RH C1608 CS 683-J	
R165	61079-918-393	R-CHIP;RH C1608 CS 393-J	
R166	61079-918-471	R-CHIP;RH C1608 CS 471-J	
R167	61079-918-181	R-CHIP;RH C1608 CS 181-J	
R168	61079-918-152	R-CHIP;RH C1608 CS 152-J	
R169	61079-918-561	R-CHIP;RH C1608 CS 561-J	
R170	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R171	61079-918-101	R-CHIP;RH C1608 CS 101-J	
R172	61079-918-151	R-CHIP;RH C1608 CS 151-J	
R173	61079-918-151	R-CHIP;RH C1608 CS 151-J	
R174	61079-918-151	R-CHIP;RH C1608 CS 151-J	
R175	61079-918-271	R-CHIP;RH C1608 CS 271-J	
R176	61079-918-181	R-CHIP;RH C1608 CS 181-J	
R177	61079-918-101	R-CHIP;RH C1608 CS 101-J	
R178	61079-918-221	R-CHIP;RH C1608 CS 221-J	
R179	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R180	61079-918-681	R-CHIP;RH C1608 CS 681-J	
R181	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R182	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R183	61079-918-561	R-CHIP;RH C1608 CS 561-J	
R184	61079-918-471	R-CHIP;RH C1608 CS 471-J	
R185	61079-918-561	R-CHIP;RH C1608 CS 561-J	
R186	61079-918-471	R-CHIP;RH C1608 CS 471-J	
R187	61079-918-471	R-CHIP;RH C1608 CS 471-J	
R188	61079-918-333	R-CHIP;RH C1608 CS 333-J	
R189	61079-918-333	R-CHIP;RH C1608 CS 333-J	
R190	61079-918-223	R-CHIP;RH C1608 CS 223-J	
R191	61079-918-152	R-CHIP;RH C1608 CS 152-J	
R192	61079-918-562	R-CHIP;RH C1608 CS 562-J	
R193	61079-918-823	R-CHIP;RH C1608 CS 823-J	
R194	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R195	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R196	61079-918-561	R-CHIP;RH C1608 CS 561-J	
R197	61079-918-122	R-CHIP;RH C1608 CS 122-J	
R198	61079-918-152	R-CHIP;RH C1608 CS 152-J	
R199	61079-918-000	R-CHIP;RH C1608 CS 000-J	

Loca. No	Part No	Description & Specification	Remark
R907	61079-918-561	R-CHIP;RH C1608 CS 561-J	
RP01	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RP02	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RP05	61079-918-473	R-CHIP;RH C1608 CS 473-J	
RP06	61079-918-472	R-CHIP;RH C1608 CS 472-J	
		VIDEO PARTS	
C201	61454-153-121	C-CERAMIC CHIP;C1608 CH1H121JT	
C202	61454-153-470	C-CERAMIC CHIP;C1608 CH1H470JT	
C203	61454-153-220	C-CERAMIC CHIP;C1608 CH1H220JT	
C204	61454-153-221	C-CERAMIC CHIP;C1608 CH1H221JT	
C205	61454-153-181	C-CERAMIC CHIP;C1608 CH1H181JT	
C206	61454-153-151	C-CERAMIC CHIP;C1608 CH1H151JT	
C208	61454-153-220	C-CERAMIC CHIP;C1608 CH1H220JT	
C209	61454-153-220	C-CERAMIC CHIP;C1608 CH1H220JT	
C210	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C212	61454-155-223	C-CERAMIC CHIP;C1608 JB1C 223KT	
C213	61454-155-223	C-CERAMIC CHIP;C1608 JB1C 223KT	
C214	61454-155-223	C-CERAMIC CHIP;C1608 JB1C 223KT	
C215	61454-153-101	C-CERAMIC CHIP;C1608 CH1H101JT	
C216	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C217	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C218	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C219	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C220	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C221	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C222	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
C223	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C224	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C225	A1100-0776	C-CERAMIC,CHIP;CK 73 Y5V 16V T 224-Z C1608 C1608Y5	
C226	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C227	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C228	61454-153-120	C-CERAMIC CHIP;C1608 CH1H120JT	
C229	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C230	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C232	61454-153-121	C-CERAMIC CHIP;C1608 CH1H121JT	
C233	61454-155-223	C-CERAMIC CHIP;C1608 JB1C 223KT	
C234	61454-157-473	C-CERAMIC CHIP;C1608 JF1C 473ZT	
C235	A1100-0676	C-CERAMIC,CHIP;CK 73 Y5V 16V T 474-Z C2012 2012 JF	
C236	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C237	61454-153-390	C-CERAMIC CHIP;C1608 CH1H390JT	
C238	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C239	A1100-0869	C-CERAMIC,CHIP;CK 73 X7R 50V T 682-K C2012 CL21B68	
C240	A1100-0776	C-CERAMIC,CHIP;CK 73 Y5V 16V T 224-Z C1608 C1608Y5	
C241	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C242	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C244	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C245	61454-153-100	C-CERAMIC CHIP;C1608 CH1H100DT	
C246	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C260	61454-153-270	C-CERAMIC CHIP;C1608 CH1H270JT	
C261	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C264	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C265	61454-153-150	C-CERAMIC CHIP;C1608 CH1H150JT	
C266	A1100-0676	C-CERAMIC,CHIP;CK 73 Y5V 16V T 474-Z C2012 2012 JF	
C267	61454-153-101	C-CERAMIC CHIP;C1608 CH1H101JT	
C268	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C269	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C300	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C301	61454-153-271	C-CERAMIC CHIP;C1608 CH1H271JT	
C302	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	

Loca. No	Part No	Description & Specification	Remark
C303	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C304	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C305	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C306	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C307	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C308	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C310	61454-153-180	C-CERAMIC CHIP;C1608 CH1H180JT	
C311	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C350	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C351	61454-153-390	C-CERAMIC CHIP;C1608 CH1H390JT	
C352	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C353	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
C354	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C355	61454-153-470	C-CERAMIC CHIP;C1608 CH1H470JT	
C356	61454-153-560	C-CERAMIC CHIP;C1608 CH1H560JT	
C357	61454-153-391	C-CERAMIC CHIP;C1608 JB1H 391KT	
C358	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
C359	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
C360	61454-153-111	C-CERAMIC CHIP;C1608 CH1H111JT	
C361	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C400	61454-153-100	C-CERAMIC CHIP;C1608 CH1H100DT	
C401	61454-153-120	C-CERAMIC CHIP;C1608 CH1H120JT	
C405	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C450	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
C451	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C452	61454-155-223	C-CERAMIC CHIP;C1608 JB1C 223KT	
C453	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C454	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C455	61454-153-180	C-CERAMIC CHIP;C1608 CH1H180JT	
C456	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
C457	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C458	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C459	61454-153-820	C-CERAMIC CHIP;C1608 CH1H820JT	
C460	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C461	61454-153-680	C-CERAMIC CHIP;C1608 CH1H680JT	
C462	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C463	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C464	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C465	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C466	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C467	61454-153-050	C-CERAMIC CHIP;C1608 CH1H050CT	
C468	61454-153-220	C-CERAMIC CHIP;C1608 CH1H220JT	
C469	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CE200	A1106-0071	C-TANTALUM,CHIP;CS 16V T 105-M C3216 SCN1C105MR-A	
CE201	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CE202	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CE203	A1106-0149	C-TANTALUM,CHIP;CS 10V T 475-M C3216	
CE204	A1106-0149	C-TANTALUM,CHIP;CS 10V T 475-M C3216	
CE205	A1106-0149	C-TANTALUM,CHIP;CS 10V T 475-M C3216	
CE206	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CE207	A1106-0149	C-TANTALUM,CHIP;CS 10V T 475-M C3216	
CE208	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
CE209	A1106-0107	C-TANTALUM,CHIP;CS 35V T 224-M C3216 SCS1V 224MR-A	
CE210	A1106-0148	C-TANTALUM,CHIP;CS 10V T 335-M C3216 SCS1A335MR-A	
CE211	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
CE212	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CE300	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CE301	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CE302	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	

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CE303	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CE304	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CE305	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CE306	61454-242-221	C-ELEC.CHIP;ECE-V0GA221P	
CE307	61454-242-221	C-ELEC.CHIP;ECE-V0GA221P	
CE308	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CE309	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CE310	A1106-0127	C-TANTALUM,CHIP;CS 6.3V T 107-M C7343	
CE311	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CE315	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
CE350	A1106-0051	C-TANTALUM,CHIP;CS 6.3V T 225-M C3216 SCN0J225MR	
CE351	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CE400	A1106-0127	C-TANTALUM,CHIP;CS 6.3V T 107-M C7343	
CE450	A1106-0148	C-TANTALUM,CHIP;CS 10V T 335-M C3216 SCS1A335MR-A	
CE451	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CE453	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CN300	B6013-0044	CONNECTOR-FPC;52085-1180 BRN REEL	
CN301	B6012-0062	CONNECTOR-HOUSING;5-175631-0 WHT	
CN303	B6013-0046	CONNECTOR-FPC;52085-0480 BRN REEL	
CN304	B6010-0728	CONNECTOR-WAFER;CGP4705-0101 GRY CHIP	
CTP02	B6012-0230	CONNECTOR-HOUSING;52357-1691 WHT	
D300	A4114-0011	DIODE-ARRAY,CHIP;DAN202U(T106) 80V 100MA 4.0NS 80V	
D301	A4114-0011	DIODE-ARRAY,CHIP;DAN202U(T106) 80V 100MA 4.0NS 80V	
D350	62169-901-077	DIODE.CHIP;MA110-(TX)	
D400	62169-901-077	DIODE.CHIP;MA110-(TX)	
D401	62169-901-077	DIODE.CHIP;MA110-(TX)	
FL201	B1242-0024	FILTER-LC,CHIP;DELAY 250NS 629ENK-1084 T 5.1X5.2	
FL202	B1242-0023	FILTER-LC,CHIP;LPF 5.6MHZ 629LLN-1064 T 5.1X5.2	
FL203	64529-632-106	FILTER CHIP;A353BCH-K5058ESAR	
FL450	A1242-0021	FILTER-LC,CHIP;BPF 4.43MHZ H488BAI-K7022=P3 T 4.8X	
IC200	B4012-0394	IC-LINEAR;HA118192A QFP	
IC300	B4008-1215	IC;MM1024AF SOP 16P TAPE	
IC301	62119-701-126	IC-FP;NJM 2235M(TE1)	
IC302	B4012-0198	IC-LINEAR;NJM2249M SOP(TE1)	
IC303	62119-701-126	IC-FP;NJM 2235M(TE1)	
IC304	62119-701-126	IC-FP;NJM 2235M(TE1)	
IC350	B4008-1124	IC;M52358VP SOP	
IC400	B4008-1208	IC;BU6145FS QFP BULK	
IC402	B4008-1077	IC;NJM2406F SOP TAPE(TE1)	
IC450	B4014-0050	IC-CCD;CXL1506N VSOP	
IC451	B4008-1218	IC;MSM7403MS-K SOP 8P TAPE	
L202	62429-962-121	INDUCTOR-CHIP;NL322522T 121-J	
L203	62429-962-680	INDUCTOR CHIP;NL322522T 68-J	
L205	B1160-0012	INDUCTOR-CHIP;47UH-K 73 NLC322522T-470K C3225	
L206	62429-962-181	INDUCTOR-CHIP;NL322522T 181-J	
L207	B1160-0029	INDUCTOR,CHIP;8.2UH-J 73 NL252018T-8R2J C2520	
L208	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
L210	62429-962-180	INDUCTOR CHIP;NL322522T 18-J	
L215	62429-962-100	INDUCTOR-CHIP;NL322522T 100-J	
L216	B1160-0038	INDUCTOR,CHIP;470UH-J 73 NL322522T-471J C3225	
L217	B1160-0037	INDUCTOR,CHIP;330UH-J 73 NL322522T-331J C3225	
L300	B1160-0012	INDUCTOR-CHIP;47UH-K 73 NLC322522T-470K C3225	
L301	B1160-0010	INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225	
L315	B1160-0010	INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225	
L350	B1160-0010	INDUCTOR-CHIP;100UH-K 73 NLC322522T-101K C3225	
L400	B1160-0033	INDUCTOR,CHIP;56UH-J 73 NL252018T-560J C2520	
L401	B1160-0012	INDUCTOR-CHIP;47UH-K 73 NLC322522T-470K C3225	
L450	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
L451	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	

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L452	62429-962-680	INDUCTOR CHIP;NL322522T 68-J	
Q200	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
Q201	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
Q202	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
Q203	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
Q204	A4050-0122	TR-GENERAL,CHIP;2SA1576(T106) 200MW 100MA 140MHZ 5	
Q205	B4056-0044	TR-SWITCHING,CHIP;UMT2 200MW 1MHZ SI/PNP TR	
Q206	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
Q207	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
Q208	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
Q209	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q211	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q212	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q213	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q214	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q215	B4056-0048	TR-SWITCHING,CHIP;UMD3 200MW 1MHZ SI/PNP TR	
Q216	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q217	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q218	B4056-0044	TR-SWITCHING,CHIP;UMT2 200MW 1MHZ SI/PNP TR	
Q219	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
Q220	B4056-0045	TR-SWITCHING,CHIP;UMX2 200MW 1MHZ SI/NPN TR	
Q221	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
Q222	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q230	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q231	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q232	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q300	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q301	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q302	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
Q304	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
Q306	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q307	A4050-0122	TR-GENERAL,CHIP;2SA1576(T106) 200MW 100MA 140MHZ 5	
Q308	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q310	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q350	A4050-0123	TR-GENERAL,CHIP;DTA144EU(T108) 200MW 100MA 250MHZ	
Q352	B4056-0045	TR-SWITCHING,CHIP;UMX2 200MW 1MHZ SI/NPN TR	
Q353	A4050-0123	TR-GENERAL,CHIP;DTA144EU(T108) 200MW 100MA 250MHZ	
Q354	A4050-0123	TR-GENERAL,CHIP;DTA144EU(T108) 200MW 100MA 250MHZ	
Q355	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
Q356	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
Q402	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q403	A4050-0122	TR-GENERAL,CHIP;2SA1576(T106) 200MW 100MA 140MHZ 5	
Q404	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q410	A4050-0123	TR-GENERAL,CHIP;DTA144EU(T108) 200MW 100MA 250MHZ	
Q450	B4056-0044	TR-SWITCHING,CHIP;UMT2 200MW 1MHZ SI/PNP TR	
Q451	B4056-0046	TR-SWITCHING,CHIP;UMZ1 200MW 1MHZ SI/PNP TR	
Q452	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q453	62129-301-115	TRANSISTOR.CHIP;2SB 1119(REEL)T-TC	
Q454	B4050-0145	TR-GENERAL,CHIP;UMH6HR 200MW 1A 1MHZ 50V SI/NPN TR	
R126	61079-918-152	R-CHIP;RH C1608 CS 152-J	
R161	61079-918-332	R-CHIP;RH C1608 CS 332-J	
R201	61079-918-272	R-CHIP;RH C1608 CS 272-J	
R202	61079-918-183	R-CHIP;RH C1608 CS 183-J	
R203	61079-918-392	R-CHIP;RH C1608 CS 392-J	
R206	61079-918-000	R-CHIP;RH C1608 CS 000-J	
R211	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R213	61079-918-122	R-CHIP;RH C1608 CS 122-J	
R216	61079-918-123	R-CHIP;RH C1608 CS 123-J	
R217	61079-918-103	R-CHIP;RH C1608 CS 103-J	

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R218	61079-918-152	R-CHIP;RH C1608 CS 152-J	
R219	61079-918-821	R-CHIP;RH C1608 CS 821-J	
R220	61079-918-821	R-CHIP;RH C1608 CS 821-J	
R221	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R222	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R223	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R224	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R226	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R228	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R229	61079-918-000	R-CHIP;RH C1608 CS 000-J	
R230	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R231	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R232	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R233	61079-918-333	R-CHIP;RH C1608 CS 333-J	
R234	61079-918-223	R-CHIP;RH C1608 CS 223-J	
R235	61079-918-681	R-CHIP;RH C1608 CS 681-J	
R237	61079-918-750	R-CHIP;RH C1608 CS 750-J	
R238	61079-918-272	R-CHIP;RH C1608 CS 272-J	
R239	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R240	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R242	61079-918-391	R-CHIP;RH C1608 CS 391-J	
R243	61079-918-182	R-CHIP;RH C1608 CS 182-J	
R244	61079-918-391	R-CHIP;RH C1608 CS 391-J	
R247	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R248	61079-918-182	R-CHIP;RH C1608 CS 182-J	
R249	61079-918-683	R-CHIP;RH C1608 CS 683-J	
R251	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R252	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R253	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R254	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R255	61079-918-821	R-CHIP;RH C1608 CS 821-J	
R256	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R257	61079-918-394	R-CHIP;RH C1608 CS 394-J	
R258	61079-918-183	R-CHIP;RH C1608 CS 183-J	
R259	61079-918-682	R-CHIP;RH C1608 CS 682-J	
R260	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R261	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R262	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R263	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R264	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R265	61079-918-272	R-CHIP;RH C1608 CS 272-J	
R266	61079-918-273	R-CHIP;RH C1608 CS 273-J	
R277	61079-918-223	R-CHIP;RH C1608 CS 223-J	
R278	61079-918-223	R-CHIP;RH C1608 CS 223-J	
R279	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R280	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R281	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R282	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R283	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R284	61079-918-153	R-CHIP;RH C1608 CS 153-J	
R285	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R286	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R287	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R288	61079-918-000	R-CHIP;RH C1608 CS 000-J	
R290	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R291	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R292	61079-918-153	R-CHIP;RH C1608 CS 153-J	
R294	61079-918-682	R-CHIP;RH C1608 CS 682-J	
R296	61079-918-683	R-CHIP;RH C1608 CS 683-J	

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R297	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R298	61079-918-562	R-CHIP;RH C1608 CS 562-J	
R299	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R300	61079-918-224	R-CHIP;RH C1608 CS 224-J	
R301	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R303	61079-918-750	R-CHIP;RH C1608 CS 750-J	
R304	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R305	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R306	61079-918-331	R-CHIP;RH C1608 CS 331-J	
R309	61079-918-000	R-CHIP;RH C1608 CS 000-J	
R311	61079-918-821	R-CHIP;RH C1608 CS 821-J	
R312	61079-918-822	R-CHIP;RH C1608 CS 822-J	
R313	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R314	A1020-0430	R-CHIP;RH 1/16 CS 203-J C1608 RMC 1/16 20K-J	
R315	61079-918-183	R-CHIP;RH C1608 CS 183-J	
R316	61079-918-750	R-CHIP;RH C1608 CS 750-J	
R317	61079-918-750	R-CHIP;RH C1608 CS 750-J	
R318	61079-918-271	R-CHIP;RH C1608 CS 271-J	
R319	61079-918-821	R-CHIP;RH C1608 CS 821-J	
R320	61079-918-331	R-CHIP;RH C1608 CS 331-J	
R321	61079-918-105	R-CHIP;RH C1608 CS 105-J	
R325	61079-918-105	R-CHIP;RH C1608 CS 105-J	
R330	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R331	61079-918-122	R-CHIP;RH C1608 CS 122-J	
R334	61079-918-105	R-CHIP;RH C1608 CS 105-J	
R338	61079-918-151	R-CHIP;RH C1608 CS 151-J	
R350	61079-918-821	R-CHIP;RH C1608 CS 821-J	
R351	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R352	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R353	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R354	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R355	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R356	61079-918-000	R-CHIP;RH C1608 CS 000-J	
R357	61079-918-561	R-CHIP;RH C1608 CS 561-J	
R358	61079-918-273	R-CHIP;RH C1608 CS 273-J	
R359	61079-918-330	R-CHIP;RH C1608 CS 330-J	
R360	61079-918-121	R-CHIP;RH C1608 CS 121-J	
R361	61079-918-272	R-CHIP;RH C1608 CS 272-J	
R362	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R363	61079-918-182	R-CHIP;RH C1608 CS 182-J	
R364	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R365	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R366	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R367	61079-918-332	R-CHIP;RH C1608 CS 332-J	
R368	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R369	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R370	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R371	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R372	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R400	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R401	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R402	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R404	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R405	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R406	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R407	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R408	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R409	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R410	61079-918-103	R-CHIP;RH C1608 CS 103-J	

Loca. No	Part No	Description & Specification	Remark
R411	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R414	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R415	61079-918-681	R-CHIP;RH C1608 CS 681-J	
R417	61079-918-562	R-CHIP;RH C1608 CS 562-J	
R418	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R419	61079-918-562	R-CHIP;RH C1608 CS 562-J	
R420	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R421	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R423	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R424	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R425	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R426	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R430	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R443	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R450	61079-918-121	R-CHIP;RH C1608 CS 121-J	
R451	61079-918-823	R-CHIP;RH C1608 CS 823-J	
R452	61079-918-681	R-CHIP;RH C1608 CS 681-J	
R454	61079-918-000	R-CHIP;RH C1608 CS 000-J	
R456	61079-918-122	R-CHIP;RH C1608 CS 122-J	
R457	61079-918-223	R-CHIP;RH C1608 CS 223-J	
R458	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R459	61079-918-471	R-CHIP;RH C1608 CS 471-J	
R460	61079-918-391	R-CHIP;RH C1608 CS 391-J	
R461	61079-918-393	R-CHIP;RH C1608 CS 393-J	
R462	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R463	61079-918-273	R-CHIP;RH C1608 CS 273-J	
R464	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R465	61079-918-223	R-CHIP;RH C1608 CS 223-J	
R466	61079-918-471	R-CHIP;RH C1608 CS 471-J	
R467	61079-918-272	R-CHIP;RH C1608 CS 272-J	
R468	61079-918-471	R-CHIP;RH C1608 CS 471-J	
R474	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R475	61079-918-391	R-CHIP;RH C1608 CS 391-J	
R476	61079-918-681	R-CHIP;RH C1608 CS 681-J	
R477	61079-918-472	R-CHIP;RH C1608 CS 472-J	
R478	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R480	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R481	61079-918-221	R-CHIP;RH C1608 CS 221-J	
VR202	B1056-0045	VR-SEMI CHIP;EVM1SSX50B14 10KB CERMET	
VR203	B1056-0045	VR-SEMI CHIP;EVM1SSX50B14 10KB CERMET	
VR204	B1056-0045	VR-SEMI CHIP;EVM1SSX50B14 10KB CERMET	
VR451	B1056-0052	VR-SEMI CHIP;EVM1SSX50B52 500B CERMET	
X201	B1280-0146	CRYSTAL;4.433619MHZ CX-49F 30PPM CHIP	
163	**69063-214-799**	**ASSY AUDIO BOARD;VP-H66 PAL**	
C701	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C703	61454-153-220	C-CERAMIC CHIP;C1608 CH1H220JT	
C705	A1100-0010	C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102	
C706	A1100-0010	C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102	
C707	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C708	61454-154-222	C-CERAMIC CHIP;1608 B1H 222KT	
C709	61454-154-152	C-CERAMIC CHIP;C1608 B1H 152KT	
C713	A1100-0010	C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102	
C714	A1100-0010	C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102	
C715	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C716	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C717	61454-154-471	C-CERAMIC CHIP;C1608 JB1H 471KT	
C719	61454-154-332	C-CERAMIC CHIP;C1608 B1H 332KT	
C720	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C721	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	

Loca. No	Part No	Description & Specification	Remark
C722	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C723	61454-155-153	C-CERAMIC CHIP;C1608 B1H 153T-K	
C726	61454-155-153	C-CERAMIC CHIP;C1608 B1H 153T-K	
C727	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C728	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C729	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C731	61454-154-332	C-CERAMIC CHIP;C1608 B1H 332KT	
C732	61454-154-471	C-CERAMIC CHIP;C1608 JB1H 471KT	
C733	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C734	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C735	A1100-0010	C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102	
C736	A1100-0010	C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102	
C740	61454-154-152	C-CERAMIC CHIP;C1608 B1H 152KT	
C741	61454-154-222	C-CERAMIC CHIP;1608 B1H 222KT	
C742	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C743	A1100-0010	C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102	
C744	A1100-0010	C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102	
C746	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C748	61454-155-223	C-CERAMIC CHIP;C1608 JB1C 223KT	
C750	61454-153-220	C-CERAMIC CHIP;C1608 CH1H220JT	
C751	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C753	61454-153-221	C-CERAMIC CHIP;C1608 CH1H221JT	
C754	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C755	61454-153-221	C-CERAMIC CHIP;C1608 CH1H221JT	
C756	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C758	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C759	A1100-0833	C-CERAMIC,CHIP;CK 73 X7R 16V T 224-K C3216 C3216X7	
C760	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C762	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C763	61454-154-682	C-CERAMIC CHIP;C1608 B1H 682KT	
C764	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CE765	A1106-0150	C-TANTALUM,CHIP;CS 6.3V T 226-M C3528 SCS0J226MR-B	
CE766	A1106-0150	C-TANTALUM,CHIP;CS 6.3V T 226-M C3528 SCS0J226MR-B	
CN701	B6010-1250	CONNECTOR-WAFER;53398-0890 WHT MOLEX	
CN703	B6010-0083	CONNECTOR-WAFER;5-175635-0 WHT	
CT702	A1106-0025	C-TANTALUM,CHIP;CS 20V T 105-M C3216 SCS1D105MR-A	
CT704	A1106-0025	C-TANTALUM,CHIP;CS 20V T 105-M C3216 SCS1D105MR-A	
CT710	A1106-0156	C-TANTALUM,CHIP;CS 6.3V T 336-M C6032 SCS0J336MR-C	
CT711	A1106-0020	C-TANTALUM,CHIP;CS 16V T 225-M C3216 SCS1C225MR-A	
CT712	A1106-0149	C-TANTALUM,CHIP;CS 10V T 475-M C3216	
CT718	A1106-0020	C-TANTALUM,CHIP;CS 16V T 225-M C3216 SCS1C225MR-A	
CT724	A1106-0149	C-TANTALUM,CHIP;CS 10V T 475-M C3216	
CT725	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CT730	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CT737	A1106-0149	C-TANTALUM,CHIP;CS 10V T 475-M C3216	
CT738	A1106-0020	C-TANTALUM,CHIP;CS 16V T 225-M C3216 SCS1C225MR-A	
CT739	A1106-0156	C-TANTALUM,CHIP;CS 6.3V T 336-M C6032 SCS0J336MR-C	
CT745	A1106-0025	C-TANTALUM,CHIP;CS 20V T 105-M C3216 SCS1D105MR-A	
CT747	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
CT749	A1106-0020	C-TANTALUM,CHIP;CS 16V T 225-M C3216 SCS1C225MR-A	
CT752	A1106-0035	C-TANTALUM,CHIP;CS 35V T 474-M C3216 SCS1V474MR-A(	
CT757	A1106-0035	C-TANTALUM,CHIP;CS 35V T 474-M C3216 SCS1V474MR-A(	
CT767	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
FL701	64529-632-116	FILTER-CHIP;TH356BTK-K5069YED=P1	
FL702	64529-632-115	FILTER-CHIP;TH356BTK-K5068YED=P1	
IC701	B4008-1006	IC;HA118276BF SOP	
IC702	62119-701-131	IC-FP;BU4053BCF SOP REEL	
L701	B1160-0011	INDUCTOR,CHIP;10UH-K 73 NLC322522T-100K C3225	
L702	B1160-0066	INDUCTOR,CHIP;8R2UH-K T NLC453232T-8R2K C4532 T	

Loca. No	Part No	Description & Specification	Remark
Q701	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q702	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q703	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
Q704	A4050-0123	TR-GENERAL,CHIP;DTA144EU(T108) 200MW 100MA 250MHZ	
Q705	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q706	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
R701	61079-918-154	R-CHIP;RH C1608 CS 154-J	
R702	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R703	61079-918-183	R-CHIP;RH C1608 CS 183-J	
R704	61079-918-563	R-CHIP;RH C1608 CS 563-J	
R705	61079-918-152	R-CHIP;RH C1608 CS 152-J	
R706	61079-918-182	R-CHIP;RH C1608 CS 182-J	
R707	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R708	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R709	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R710	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R711	61079-918-152	R-CHIP;RH C1608 CS 152-J	
R712	61079-918-182	R-CHIP;RH C1608 CS 182-J	
R713	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R714	A1020-0430	R-CHIP;RH 1/16 CS 203-J C1608 RMC 1/16 20K-J	
R715	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R716	61079-918-183	R-CHIP;RH C1608 CS 183-J	
R717	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R718	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R719	61079-918-183	R-CHIP;RH C1608 CS 183-J	
R720	61079-918-123	R-CHIP;RH C1608 CS 123-J	
R721	61079-918-681	R-CHIP;RH C1608 CS 681-J	
R722	61079-918-391	R-CHIP;RH C1608 CS 391-J	
R724	61079-918-681	R-CHIP;RH C1608 CS 681-J	
R725	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R726	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R727	61079-918-271	R-CHIP;RH C1608 CS 271-J	
R728	61079-918-681	R-CHIP;RH C1608 CS 681-J	
R729	61079-918-000	R-CHIP;RH C1608 CS 000-J	
R730	61079-918-102	R-CHIP;RH C1608 CS 102-J	
R731	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R732	61079-918-153	R-CHIP;RH C1608 CS 153-J	
R733	61079-918-473	R-CHIP;RH C1608 CS 473-J	
R734	61079-918-153	R-CHIP;RH C1608 CS 153-J	
R735	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R740	61079-918-680	R-CHIP;RH C1608 CS 680-J	
R742	61079-918-680	R-CHIP;RH C1608 CS 680-J	
R744	61079-918-154	R-CHIP;RH C1608 CS 154-J	
R745	61079-918-333	R-CHIP;RH C1608 CS 333-J	
R746	61079-918-242	R-CHIP;RH C1608 CS 242-J	
R747	B1020-0713	R-CHIP;RH 1/16 CS 123-D C1608 RR0816P-123-D	
R750	61079-918-154	R-CHIP;RH C1608 CS 154-J	
VR701	B1056-0048	VR-SEMI CHIP;EVM1SSX50B24 20KB CERMET	
VR702	B1056-0045	VR-SEMI CHIP;EVM1SSX50B14 10KB CERMET	
VR703	B1056-0051	VR-SEMI CHIP;EVM1SSX50B54 50KB CERMET	
VR704	B1056-0051	VR-SEMI CHIP;EVM1SSX50B54 50KB CERMET	
116	**69063-214-599**	**ASSY MIC BOARD**	
C802	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
C803	61454-157-473	C-CERAMIC CHIP;C1608 JF1C 473ZT	
C804	61454-153-101	C-CERAMIC CHIP;C1608 CH1H101JT	
C805	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C810	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
C811	61454-157-473	C-CERAMIC CHIP;C1608 JF1C 473ZT	
C812	61454-153-101	C-CERAMIC CHIP;C1608 CH1H101JT	

Loca. No	Part No	Description & Specification	Remark
C813	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C820	61454-157-473	C-CERAMIC CHIP;C1608 JF1C 473ZT	
C821	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C822	61454-155-153	C-CERAMIC CHIP;C1608 B1H 153T-K	
C823	61454-157-333	C-CERAMIC CHIP;C1608 B1C 333T-K	
C824	61454-157-333	C-CERAMIC CHIP;C1608 B1C 333T-K	
C830	61454-157-473	C-CERAMIC CHIP;C1608 JF1C 473ZT	
C831	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C832	61454-155-153	C-CERAMIC CHIP;C1608 B1H 153T-K	
C833	61454-157-333	C-CERAMIC CHIP;C1608 B1C 333T-K	
C834	61454-157-333	C-CERAMIC CHIP;C1608 B1C 333T-K	
CN801	B6010-1250	CONNECTOR-WAFER;53398-0890 WHT MOLEX	
CN802	B6010-1249	CONNECTOR-WAFER;53398-0490 WHT MOLEX	
CN803	B6010-1249	CONNECTOR-WAFER;53398-0490 WHT MOLEX	
CT819	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
CT841	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
IC801	62119-701-129	IC-FP;LA7470M(TE-L)	
LD801	62309-110-340	LED;GL-3HD7/GL3HD8	
Q801	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
Q805	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
R801	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R802	61079-918-154	R-CHIP;RH C1608 CS 154-J	
R803	61079-918-154	R-CHIP;RH C1608 CS 154-J	
R804	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R805	61079-918-822	R-CHIP;RH C1608 CS 822-J	
R814	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R815	61079-918-154	R-CHIP;RH C1608 CS 154-J	
R816	61079-918-154	R-CHIP;RH C1608 CS 154-J	
R817	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R818	61079-918-822	R-CHIP;RH C1608 CS 822-J	
R827	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R828	61079-918-561	R-CHIP;RH C1608 CS 561-J	
R829	61079-918-223	R-CHIP;RH C1608 CS 223-J	
R830	61079-918-563	R-CHIP;RH C1608 CS 563-J	
R831	61079-918-183	R-CHIP;RH C1608 CS 183-J	
R837	61079-918-103	R-CHIP;RH C1608 CS 103-J	
R838	61079-918-561	R-CHIP;RH C1608 CS 561-J	
R839	61079-918-223	R-CHIP;RH C1608 CS 223-J	
R840	61079-918-563	R-CHIP;RH C1608 CS 563-J	
R841	61079-918-183	R-CHIP;RH C1608 CS 183-J	
R847	61079-918-470	R-CHIP;RH C1608 CS 470-J	
R848	61079-918-561	R-CHIP;RH C1608 CS 561-J	
R849	61079-918-151	R-CHIP;RH C1608 CS 151-J	
R850	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R851	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R853	61079-918-000	R-CHIP;RH C1608 CS 000-J	
R854	61079-918-000	R-CHIP;RH C1608 CS 000-J	
R855	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R856	61079-918-152	R-CHIP;RH C1608 CS 152-J	
R860	61079-918-000	R-CHIP;RH C1608 CS 000-J	
R861	61079-918-000	R-CHIP;RH C1608 CS 000-J	
R862	61079-918-222	R-CHIP;RH C1608 CS 222-J	
R863	61079-918-152	R-CHIP;RH C1608 CS 152-J	
RM801	B1294-0026	MODULE-REMOCON;GP1U901X 38KHZ 940 MESH	
130	**69063-214-699**	**ASSY LIGHT BOARD**	
CN966	66439-0086-00	CONNECTOR WIRE(ASSY);1571#28 1203-5903 3P 100MM	
131	**69063-214-697**	**ASSY FUNCTION CAM BOARD**	
B971	B1248-0008	FILTER-EMI,CHIP;HF70ACB201209T 10OHM 25% T 50V 201	
B972	B1248-0008	FILTER-EMI,CHIP;HF70ACB201209T 10OHM 25% T 50V 201	

Loca. No	Part No	Description & Specification	Remark
B973	B1248-0008	FILTER-EMI,CHIP;HF70ACB201209T 100HM 25% T 50V 201	
C944	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
C945	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
C946	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C947	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
C971	61454-154-561	C-CERAMIC CHIP;C1608 B1H 561KT	
C973	61454-154-561	C-CERAMIC CHIP;C1608 B1H 561KT	
C974	61454-154-561	C-CERAMIC CHIP;C1608 B1H 561KT	
CN962	B6010-1555	CONNECTOR-WAFER;4-175635-0 BLK AMP	
CN963	B6012-0249	CONNECTOR-HOUSING;SD-52365-0891 WHT MOLEX	
CN965	B6010-1708	CONNECTOR-WAFER;CGP4703-0101 YEL SMK 3PIN	
J903	63344-010-340	JACK EARPHONE;HSJ1715-01-110(STEREO)	
L944	62429-962-124	INDUCTOR-CHIP;NL322522T 1R0-K	
L945	62429-962-124	INDUCTOR-CHIP;NL322522T 1R0-K	
L946	62429-962-124	INDUCTOR-CHIP;NL322522T 1R0-K	
Q971	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)	
R974	B1020-0712	R-CHIP;RH 1/16 CS 153-D C1608 RR0816P-153-D	
R975	B1020-0705	R-CHIP;RH 1/16 CS 104-D C1608 RR0816R-104-D	
R976	B1020-0714	R-CHIP;RH 1/16 CS 223-D C1608 RR0816P-223-D	
R977	B1020-0703	R-CHIP;RH 1/16 CS 333-D C1608 RR0816P-333-D	
R978	B1020-0843	R-CHIP;RH 1/16 CS 563-D C1608 RR0816R-563-D	
R979	B1020-0844	R-CHIP;RH 1/16 CS 124-D C1608 RR0816R-124-D	
R980	B1020-0845	R-CHIP;RH 1/16 CS 334-D C1608 RR0816R-334-D	
S974	B3018-0025	SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY	
S975	B3018-0025	SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY	
S976	B3018-0025	SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY	
S977	B3018-0041	SW-TACT,CHIP;EVQ-QH9-03W 6.2X6.8MM YEL 1KEY	
S978	B3018-0041	SW-TACT,CHIP;EVQ-QH9-03W 6.2X6.8MM YEL 1KEY	
S979	B3018-0041	SW-TACT,CHIP;EVQ-QH9-03W 6.2X6.8MM YEL 1KEY	
132	**69063-214-698**	**ASSY FUNCTION ROTARY BOARD**	
CN964	B6010-1558	CONNECTOR-WAFER;SD-53268-0891 WHT MOLEX	
Q961	A4050-0121	TR-GENERAL,CHIP;2SC4081(T106) 200MW 100MA 180MHZ 5	
R981	B1020-0712	R-CHIP;RH 1/16 CS 153-D C1608 RR0816P-153-D	
R982	B1020-0714	R-CHIP;RH 1/16 CS 223-D C1608 RR0816P-223-D	
R983	B1020-0703	R-CHIP;RH 1/16 CS 333-D C1608 RR0816P-333-D	
R984	B1020-0843	R-CHIP;RH 1/16 CS 563-D C1608 RR0816R-563-D	
R985	B1020-0844	R-CHIP;RH 1/16 CS 124-D C1608 RR0816R-124-D	
R986	B1020-0845	R-CHIP;RH 1/16 CS 334-D C1608 RR0816R-334-D	
R987	B1020-0705	R-CHIP;RH 1/16 CS 104-D C1608 RR0816R-104-D	
S981	B3012-0009	SW-ROTARY;1C9P 4.6MM NSH SRBQ09 16V0.1A 50GF	
136	**69063-214-696**	**ASSY FUNCTION VCR BOARD**	
CN961	B6012-0249	CONNECTOR-HOUSING;SD-52365-0891 WHT MOLEX	
R961	B1020-0712	R-CHIP;RH 1/16 CS 153-D C1608 RR0816P-153-D	
R962	B1020-0705	R-CHIP;RH 1/16 CS 104-D C1608 RR0816R-104-D	
R963	B1020-0714	R-CHIP;RH 1/16 CS 223-D C1608 RR0816P-223-D	
R964	B1020-0703	R-CHIP;RH 1/16 CS 333-D C1608 RR0816P-333-D	
R965	B1020-0843	R-CHIP;RH 1/16 CS 563-D C1608 RR0816R-563-D	
R966	B1020-0844	R-CHIP;RH 1/16 CS 124-D C1608 RR0816R-124-D	
R967	B1020-0712	R-CHIP;RH 1/16 CS 153-D C1608 RR0816P-153-D	
R968	B1020-0705	R-CHIP;RH 1/16 CS 104-D C1608 RR0816R-104-D	
R969	B1020-0714	R-CHIP;RH 1/16 CS 223-D C1608 RR0816P-223-D	
R970	B1020-0703	R-CHIP;RH 1/16 CS 333-D C1608 RR0816P-333-D	
R971	B1020-0843	R-CHIP;RH 1/16 CS 563-D C1608 RR0816R-563-D	
R972	B1020-0844	R-CHIP;RH 1/16 CS 124-D C1608 RR0816R-124-D	
R973	B1020-0845	R-CHIP;RH 1/16 CS 334-D C1608 RR0816R-334-D	
S961	B3018-0025	SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY	
S962	B3018-0025	SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY	
S963	B3018-0025	SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY	
S964	B3018-0025	SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY	

Loca. No	Part No	Description & Specification	Remark
S965	B3018-0025	SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY	
S970	B3018-0025	SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY	
S971	B3018-0025	SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY	
S972	B3018-0025	SW-TACT,CHIP;SKQGAF 6.4X5.2MM WHT 1KEY	
S973	B3006-0083	SW-SLIDE,CHIP;6C4P SH 5V HSW0882-510021 T	
115	**69063-214-692**	**ASSY MANUAL FOCUS BOARD**	
PI01	B4161-0025	PHOTO-INTERRUPTER;ON1004 CA	
PI02	B4161-0025	PHOTO-INTERRUPTER;ON1004 CA	
208	***EE-H66/SEG**	**ASSY CVF**	
188	**69063-214-725**	**ASSY PROCESS BOARD**	
CL01	A1106-0017	C-TANTALUM,CHIP;CS 10V T 226-M C6032 SCS1A226MR	
CL02	61454-153-270	C-CERAMIC CHIP;C1608 CH1H270JT	
CL03	61454-154-681	C-CERAMIC CHIP;C1608 B1H 681KT	
CL04	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CL05	61454-153-560	C-CERAMIC CHIP;C1608 CH1H560JT	
CL06	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CL07	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CL08	61454-153-820	C-CERAMIC CHIP;C1608 CH1H820JT	
CL09	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CL10	61454-157-473	C-CERAMIC CHIP;C1608 JF1C 473ZT	
CL12	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CL13	A1106-0090	C-TANTALUM,CHIP;CS 25V T 474-M C3216 SCN1E474MR-A	
CL14	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CL15	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CL16	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CL18	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CL19	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CL20	A1106-0117	C-TANTALUM,CHIP;CS 20V T 226-M C3216 SCS1D226MR-D	
CL21	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CL22	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CL23	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CL24	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CL25	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CL26	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CL27	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CL28	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CL29	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CL30	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CL31	A1106-0127	C-TANTALUM,CHIP;CS 6.3V T 107-M C7343	
CL32	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CL33	61454-154-682	C-CERAMIC CHIP;C1608 B1H 682KT	
CL34	A1106-0020	C-TANTALUM,CHIP;CS 16V T 225-M C3216 SCS1C225MR-A	
CL35	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CL36	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
CL37	61454-153-270	C-CERAMIC CHIP;C1608 CH1H270JT	
CL38	61454-153-560	C-CERAMIC CHIP;C1608 CH1H560JT	
CL40	61454-154-222	C-CERAMIC CHIP;1608 B1H 222KT	
CL50	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
CL51	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CL52	61454-153-470	C-CERAMIC CHIP;C1608 CH1H470JT	
CL53	A1106-0117	C-TANTALUM,CHIP;CS 20V T 226-M C3216 SCS1D226MR-D	
CL54	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CL55	A1106-0219	C-TANTALUM,CHIP;CS 16V T 106-M C6032 SCN1C106MR-C(	
CL56	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CL57	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CL60	A1106-0028	C-TANTALUM,CHIP;CS 20V T 475-M C3528 SCS1D475MR-B	
CNL01	B6010-0871	CONNECTOR-WAFER;53398-0590 WHT	
CNL02	B6010-1487	CONNECTOR-HOUSING;IL-WXA-14S-VF-E1000 WHT	
DL01	62169-901-077	DIODE.CHIP;MA110-(TX)	

Loca. No	Part No	Description & Specification	Remark
DL02	62169-901-077	DIODE.CHIP;MA110-(TX)	
DL50	A4114-0009	DIODE-ARRAY,CHIP;DAN202K 80V 100MA 4NS CA2-3 T	
DL51	62169-106-011	DIODE-ZENER.CHIP;RD-12M T1B	
FL06	A1134-0020	COIL-TRAP;4.43MHZ 56PF 303AN-K5031NK=P3 Q80 T	
ICL01	B4012-0280	IC-LINEAR;CXA1785R-T4 VQFP	
ICL02	B4004-0340	IC-LOGIC;TC7W04FU-TE12L SOP TAPE 8P	
ICL50	B4012-0253	IC-LINEAR;NJM2360M SOP TE3	
LL01	B1160-0043	INDUCTOR,CHIP;33UH-K 73 NLC322522T-330K C3225	
LL02	B1160-0049	INDUCTOR,CHIP;47UH-J 73 NL252018T-470J C2520	
LL03	B1160-0043	INDUCTOR,CHIP;33UH-K 73 NLC322522T-330K C3225	
LL06	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
LL50	B1160-0043	INDUCTOR,CHIP;33UH-K 73 NLC322522T-330K C3225	
LL51	B1160-0008	INDUCTOR,CHIP;220UH-K 73 NLC322522T-221K C3225	
LL52	B1160-0043	INDUCTOR,CHIP;33UH-K 73 NLC322522T-330K C3225	
LL53	B1160-0043	INDUCTOR,CHIP;33UH-K 73 NLC322522T-330K C3225	
QL01	62129-301-117	TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA	
QL02	A4050-0104	TR-GENERAL,CHIP;2SA1179 200MW 150MA 180MHZ 55V SI	
QL03	A4050-0104	TR-GENERAL,CHIP;2SA1179 200MW 150MA 180MHZ 55V SI	
RL02	A1020-0585	R-CHIP;RH 1/16 CS 106-J C1608	
RL03	61079-918-623	R-CHIP;RH C1608 CS 623-J	
RL04	61079-918-563	R-CHIP;RH C1608 CS 563-J	
RL05	61079-918-332	R-CHIP;RH C1608 CS 332-J	
RL06	61079-918-105	R-CHIP;RH C1608 CS 105-J	
RL07	61079-918-562	R-CHIP;RH C1608 CS 562-J	
RL08	61079-918-152	R-CHIP;RH C1608 CS 152-J	
RL09	61079-918-681	R-CHIP;RH C1608 CS 681-J	
RL12	61079-918-562	R-CHIP;RH C1608 CS 562-J	
RL13	61079-918-822	R-CHIP;RH C1608 CS 822-J	
RL14	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RL15	61079-918-473	R-CHIP;RH C1608 CS 473-J	
RL16	61079-918-623	R-CHIP;RH C1608 CS 623-J	
RL17	A1020-0446	R-CHIP;RH 1/16 CS 363-J C1608 RMC 1/16 36K-J	
RL18	61079-918-473	R-CHIP;RH C1608 CS 473-J	
RL21	61079-918-273	R-CHIP;RH C1608 CS 273-J	
RL22	61079-918-333	R-CHIP;RH C1608 CS 333-J	
RL23	61079-918-473	R-CHIP;RH C1608 CS 473-J	
RL24	61079-918-393	R-CHIP;RH C1608 CS 393-J	
RL25	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RL27	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RL28	61079-918-563	R-CHIP;RH C1608 CS 563-J	
RL29	61079-918-563	R-CHIP;RH C1608 CS 563-J	
RL30	61079-918-271	R-CHIP;RH C1608 CS 271-J	
RL31	A1020-0611	R-CHIP;RH 1/16 CS 183-F C1608	
RL32	61079-918-564	R-CHIP;RH C1608 CS 564-J	
RL33	61079-918-563	R-CHIP;RH C1608 CS 563-J	
RL34	61079-918-473	R-CHIP;RH C1608 CS 473-J	
RL35	61079-918-824	R-CHIP;RH C1608 CS 824-J	
RL36	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RL37	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RL39	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RL40	61079-918-752	R-CHIP;RH C1608 CS 752-J	
RL41	61079-918-473	R-CHIP;RH C1608 CS 473-J	
RL42	61079-918-433	R-CHIP;RH C1608 CS 433-J	
RL43	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RL45	61079-918-562	R-CHIP;RH C1608 CS 562-J	
RL46	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RL50	61079-918-432	R-CHIP;RH C1608 CS 432-J	
RL51	61079-918-292	R-CHIP;RH C1608 CS 2R2-J	
RL52	61079-918-181	R-CHIP;RH C1608 CS 181-J	

Loca. No	Part No	Description & Specification	Remark
RL53	61079-918-473	R-CHIP;RH C1608 CS 473-J	
RL54	A1020-0357	R-CHIP;RH 1/10 CS 271-F C2012 MCR/RMC	
RL60	61079-917-331	R-CHIP;RH C2012 CS 331-J	
VRL02	B1056-0048	VR-SEMI CHIP;EVM1SSX50B24 20KB CERMET	
VRL04	B1056-0048	VR-SEMI CHIP;EVM1SSX50B24 20KB CERMET	
VRL06	B1056-0011	VR-SEMI CHIP;EVM1XSX50B24 20KB CARBON	
VRL50	61249-924-001	VR-SEMI CHIP;EVM-1XSX50B13	
XL01	B1280-0146	CRYSTAL;4.433619MHZ CX-49F 30PPM CHIP	
189	**69063-214-726**	**ASSY DRIVE BOARD**	
CF01	A1106-0148	C-TANTALUM,CHIP;CS 10V T 335-M C3216 SCS1A335MR-A	
CF02	61454-153-101	C-CERAMIC CHIP;C1608 CH1H101JT	
CF03	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
CF04	61454-154-332	C-CERAMIC CHIP;C1608 B1H 332KT	
CF05	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CF06	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CF07	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CF08	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
CF09	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CF10	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CF11	A1106-0117	C-TANTALUM,CHIP;CS 20V T 226-M C3216 SCS1D226MR-D	
CF12	A1106-0127	C-TANTALUM,CHIP;CS 6.3V T 107-M C7343	
CF13	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CF14	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CNF01	B6010-1485	CONNECTOR-WAFER;IL-WXA-14P-HF-E1000 WHT	
CNF02	B6010-1087	CONNECTOR-WAFER;53264-1092 WHT MOLEX	
CNF03	B6010-1089	CONNECTOR-FPC;52559-1690 WHT MOLEX	
DF01	62169-901-075	DIODE.CHIP;1T33(A)-T8(REEL)	
ICF01	B4004-0407	IC-LOGIC;CXD2403AR QFP BULK 48P	
LF01	B1160-0042	INDUCTOR,CHIP;6R8UH-J 73 NL252018T-6R8J C2520	
RF01	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RF02	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RF03	61079-918-333	R-CHIP;RH C1608 CS 333-J	
RF04	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RF06	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RF07	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RF08	61079-918-473	R-CHIP;RH C1608 CS 473-J	
RF09	A1020-0446	R-CHIP;RH 1/16 CS 363-J C1608 RMC 1/16 36K-J	
RF10	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RF15	61079-918-103	R-CHIP;RH C1608 CS 103-J	
191	**69063-213-568**	**ASSY BACK LIGHT BOARD;SANYO B/L**	
CN901	B6010-1088	CONNECTOR-HOUSING;52357-1091 WHT MOLEX	
FL901	B4158-0033	LAMP;3AE4T4KL0502Y 5V 0.3W WHT	
L901	67189-0050-00	CONVERTER-COIL;CD-T-D013-023SS	
Q901	B4054-0053	FET;2SK1474-Z 20W 8A 100V MOS/N-CHANNEL T TL	
161	**69063-214-899**	**ASSY CAM MAIN BOARD;VP-H68 PAL**	
		A/F PARTS	
CA01	61619-908-011	C-ELEC.CHIP;UWX1C100 MCR2GB PI3 10U/16V	
CA02	61454-153-470	C-CERAMIC CHIP;C1608 CH1H470JT	
CA03	61454-153-220	C-CERAMIC CHIP;C1608 CH1H220JT	
CA04	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CA09	61454-154-332	C-CERAMIC CHIP;C1608 B1H 332KT	
CA10	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CA16	61454-154-332	C-CERAMIC CHIP;C1608 B1H 332KT	
CA17	A1100-0848	C-CERAMIC,CHIP;CC 73 X7S 16V T 683-K C1608	
CA18	61454-157-333	C-CERAMIC CHIP;C1608 B1C 333T-K	
CA19	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CA20	61454-153-101	C-CERAMIC CHIP;C1608 CH1H101JT	
CA21	A1100-0675	C-CERAMIC,CHIP;CK 73 Y5V 16V T 225-Z C2012	
CA22	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	

Loca. No	Part No	Description & Specification	Remark
CA24	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CA30	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CA31	61454-243-221	C-ELEC.CHIP;ECE-V0JA220R	
CA32	A1106-0150	C-TANTALUM,CHIP;CS 6.3V T 226-M C3528 SCS0J226MR-B	
CA33	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CA35	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CA36	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CA38	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CA39	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
CA50	61454-244-471	C-ELEC.CHIP;ECE-V1CA470P	
CA51	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CA60	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CA61	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CA62	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CA63	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CA64	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CA70	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CA71	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CA72	A1100-0975	C-CERAMIC,CHIP;CC 73 X7R 50V T 242-K C1608	
CA73	A1100-0975	C-CERAMIC,CHIP;CC 73 X7R 50V T 242-K C1608	
CA74	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CA75	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CA76	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CA77	A1100-0975	C-CERAMIC,CHIP;CC 73 X7R 50V T 242-K C1608	
CA78	A1100-0975	C-CERAMIC,CHIP;CC 73 X7R 50V T 242-K C1608	
CA79	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CA80	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CA81	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
CA82	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CA83	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CNA01	B6012-0247	CONNECTOR-HOUSING;5-175635-4 BLK AMP	
CNA02	B6013-0048	CONNECTOR-FPC;04-6214-020-010-800 WHT	
DA01	62169-901-077	DIODE.CHIP;MA110-(TX)	
ICA01	67199-0215-00	MICOM;UPD78P218AGC-AB8 SV-H77 QFP	
ICA02	B4000-0053	IC-EEPROM;X24C01S-C7519 SOP	
ICA03	B4008-0983	IC;MB88346B VSOP	
ICA04	B4004-0415	IC-LOGIC;MPC17A85ZVM/SC1113157 SOP TAPE 30P SC1113	
ICA05	B4004-0415	IC-LOGIC;MPC17A85ZVM/SC1113157 SOP TAPE 30P SC1113	
ICA06	B4012-0262	IC-LINEAR;NJM3403AV SOP TAPE(TE1)	
ICA08	62119-402-030	IC-FP;NJM3414AM(TE3)	
LA01	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
LA02	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
LA03	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
LA04	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
LA05	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
QA01	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
QA02	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
QA03	A4050-0104	TR-GENERAL,CHIP;2SA1179 200MW 150MA 180MHZ 55V SI	
QA04	A4050-0123	TR-GENERAL,CHIP;DTA144EU(T108) 200MW 100MA 250MHZ	
QA06	A4050-0125	TR-GENERAL,CHIP;DTC144WK(T146) 200MW 100MA 250MHZ	
QA07	A4050-0125	TR-GENERAL,CHIP;DTC144WK(T146) 200MW 100MA 250MHZ	
QA09	B4050-0088	TR-GENERAL,CHIP;IMZ1 300MW 100MA 50MHZ 50V SI/PNP	
QA10	B4050-0088	TR-GENERAL,CHIP;IMZ1 300MW 100MA 50MHZ 50V SI/PNP	
QA11	B4050-0067	TR-GENERAL,CHIP;IMT1 1MA 5MA 20KHZ 5V SI/PNP	
QA12	62129-301-117	TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA	
QA13	B4050-0088	TR-GENERAL,CHIP;IMZ1 300MW 100MA 50MHZ 50V SI/PNP	
RA01	61079-918-104	R-CHIP;RH C1608 CS 104-J	
RA02	61079-918-104	R-CHIP;RH C1608 CS 104-J	
RA03	61079-918-391	R-CHIP;RH C1608 CS 391-J	

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RA04	61079-918-391	R-CHIP;RH C1608 CS 391-J	
RA05	A1020-0846	R-CHIP;RH 1/10 CS 4R3-J C2012	
RA06	A1020-0846	R-CHIP;RH 1/10 CS 4R3-J C2012	
RA07	61079-917-478	R-CHIP;RH C2012 CS 4R7-J	
RA08	61079-917-478	R-CHIP;RH C2012 CS 4R7-J	
RA09	61079-918-104	R-CHIP;RH C1608 CS 104-J	
RA10	61079-918-104	R-CHIP;RH C1608 CS 104-J	
RA17	61079-918-332	R-CHIP;RH C1608 CS 332-J	
RA18	61079-918-334	R-CHIP;RH C1608 CS 334-J	
RA20	61079-918-104	R-CHIP;RH C1608 CS 104-J	
RA22	61079-918-104	R-CHIP;RH C1608 CS 104-J	
RA23	61079-918-823	R-CHIP;RH C1608 CS 823-J	
RA24	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RA25	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RA26	A1020-0619	R-CHIP;RH 1/16 CS 223-F C1608	
RA27	B1020-0719	R-CHIP;RH 1/16 CS 183-D C1608 RR0816P-183-D	
RA28	A1020-0619	R-CHIP;RH 1/16 CS 223-F C1608	
RA29	A1020-0636	R-CHIP;RH 1/16 CS 333-F C1608	
RA30	61079-918-393	R-CHIP;RH C1608 CS 393-J	
RA31	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RA32	61079-918-472	R-CHIP;RH C1608 CS 472-J	
RA33	61079-918-223	R-CHIP;RH C1608 CS 223-J	
RA34	61079-918-333	R-CHIP;RH C1608 CS 333-J	
RA35	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RA36	61079-918-473	R-CHIP;RH C1608 CS 473-J	
RA41	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RA42	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RA43	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RA44	61079-918-153	R-CHIP;RH C1608 CS 153-J	
RA45	61079-918-563	R-CHIP;RH C1608 CS 563-J	
RA46	61079-918-104	R-CHIP;RH C1608 CS 104-J	
RA47	61079-918-563	R-CHIP;RH C1608 CS 563-J	
RA48	61079-918-104	R-CHIP;RH C1608 CS 104-J	
RA49	61079-918-682	R-CHIP;RH C1608 CS 682-J	
RA50	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RA51	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RA52	61079-918-100	R-CHIP;RH C1608 CS 100-J	
RA53	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RA54	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RA55	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RA60	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RA61	61079-918-683	R-CHIP;RH C1608 CS 683-J	
RA62	61079-918-683	R-CHIP;RH C1608 CS 683-J	
RA63	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RA64	61079-918-683	R-CHIP;RH C1608 CS 683-J	
RA65	61079-918-683	R-CHIP;RH C1608 CS 683-J	
RA66	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RA67	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RA69	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RA70	61079-918-472	R-CHIP;RH C1608 CS 472-J	
RA71	61079-918-472	R-CHIP;RH C1608 CS 472-J	
RA72	61079-918-153	R-CHIP;RH C1608 CS 153-J	
RA73	61079-918-473	R-CHIP;RH C1608 CS 473-J	
RA74	61079-918-223	R-CHIP;RH C1608 CS 223-J	
RA75	61079-918-391	R-CHIP;RH C1608 CS 391-J	
RA77	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RA78	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RA80	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RA81	61079-918-153	R-CHIP;RH C1608 CS 153-J	

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RA82	61079-918-472	R-CHIP;RH C1608 CS 472-J	
RA83	61079-918-472	R-CHIP;RH C1608 CS 472-J	
RA84	61079-918-473	R-CHIP;RH C1608 CS 473-J	
RA85	61079-918-333	R-CHIP;RH C1608 CS 333-J	
XA01	B1280-0111	CRYSTAL;12MHZ CX-49F 100PPM CHIP	
		DRIVE PARTS	
CD01	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD02	61454-153-470	C-CERAMIC CHIP;C1608 CH1H470JT	
CD03	61454-243-102	C-ELEC.CHIP;ECE-V1EA100P	
CD04	A1106-0111	C-TANTALUM,CHIP;CS 35V T 105-M C3528 SCN1V105MR-B	
CD05	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD06	61454-243-221	C-ELEC.CHIP;ECE-V0JA220R	
CD07	61619-908-011	C-ELEC.CHIP;UWX1C100 MCR2GB PI3 10U/16V	
CD09	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD10	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD11	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CD12	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD13	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CD14	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CD15	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD16	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD17	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD18	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CD19	61454-153-150	C-CERAMIC CHIP;C1608 CH1H150JT	
CD21	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CD22	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CD23	A1106-0153	C-TANTALUM,CHIP;CS 6.3V T 106-M C3216 SCS0J106MR-A	
CD24	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CD25	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CD26	61454-243-471	C-ELEC.CHIP;ECE-V0JA470P	
CD27	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CD29	B1100-0779	C-CERAMIC-CHIP;CK 73 Y5V 16V T 334-Z C1608 GRM39Y5	
CD31	B1100-0630	C-CERAMIC,CHIP;CK 73 Y5V 16V T 105-Z C2012	
CD33	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
CD35	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD40	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD41	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD45	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD46	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD47	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD48	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD49	61454-153-100	C-CERAMIC CHIP;C1608 CH1H100DT	
CD50	61454-153-120	C-CERAMIC CHIP;C1608 CH1H120JT	
CD54	61454-153-100	C-CERAMIC CHIP;C1608 CH1H100DT	
CD55	61454-153-150	C-CERAMIC CHIP;C1608 CH1H150JT	
CD56	61454-153-100	C-CERAMIC CHIP;C1608 CH1H100DT	
CD58	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD59	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CD60	61454-153-101	C-CERAMIC CHIP;C1608 CH1H101JT	
CND01	B6012-0253	CONNECTOR-HOUSING;SD-52588-1890 WHT MOLEX	
DD01	62169-901-076	DIODE.CHIP;MA141WA-(TX)	
DD02	62169-901-077	DIODE.CHIP;MA110-(TX)	
DD03	62169-901-077	DIODE.CHIP;MA110-(TX)	
DD06	62169-901-077	DIODE.CHIP;MA110-(TX)	
DD08	62169-901-077	DIODE.CHIP;MA110-(TX)	
FD01	A1240-0109	FILTER-LC;LP 70NSEC G355ENK-K5168=P3 T	
ICD01	B4008-0898	IC;CXD1250N SOP CCD DRIVER	
ICD02	A4008-1069	IC;KA7302 SOP	
ICD03	A4012-0192	IC-LINEAR;KAD0228 SOP	

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ICD04	B4004-0394	IC-LOGIC;TC7W08FU-TE12L SOP TAPE 8P	
ICD05	B4004-0340	IC-LOGIC;TC7W04FU-TE12L SOP TAPE 8P	
LD01	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
LD02	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
LD03	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
LD04	B1160-0032	INDUCTOR,CHIP;33UH-J 73 NL252018T-330J C2520	
LD05	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
LD06	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
LD07	B1160-0011	INDUCTOR,CHIP;10UH-K 73 NLC322522T-100K C3225	
LD08	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
QD01	B4050-0088	TR-GENERAL,CHIP;IMZ1 300MW 100MA 50MHZ 50V SI/PNP	
QD02	62129-303-006	TRANSISTOR-CHIP;IMX1	
QD03	62129-301-117	TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA	
QD04	62129-301-117	TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA	
QD05	A4050-0104	TR-GENERAL,CHIP;2SA1179 200MW 150MA 180MHZ 55V SI	
QD06	62129-303-006	TRANSISTOR-CHIP;IMX1	
QD07	B4050-0088	TR-GENERAL,CHIP;IMZ1 300MW 100MA 50MHZ 50V SI/PNP	
RD01	61079-918-105	R-CHIP;RH C1608 CS 105-J	
RD02	61079-918-123	R-CHIP;RH C1608 CS 123-J	
RD03	61079-918-274	R-CHIP;RH C1608 CS 274-J	
RD04	61079-918-153	R-CHIP;RH C1608 CS 153-J	
RD05	61079-918-123	R-CHIP;RH C1608 CS 123-J	
RD06	61079-918-683	R-CHIP;RH C1608 CS 683-J	
RD07	61079-918-273	R-CHIP;RH C1608 CS 273-J	
RD08	61079-918-123	R-CHIP;RH C1608 CS 123-J	
RD09	61079-918-472	R-CHIP;RH C1608 CS 472-J	
RD10	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RD11	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RD12	61079-918-472	R-CHIP;RH C1608 CS 472-J	
RD14	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RD15	61079-918-242	R-CHIP;RH C1608 CS 242-J	
RD16	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RD17	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RD18	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RD19	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RD20	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RD21	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RD22	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RD23	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RD24	61079-918-332	R-CHIP;RH C1608 CS 332-J	
RD25	61079-918-162	R-CHIP;RH C1608 CS 162-J	
RD26	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RD34	61079-918-152	R-CHIP;RH C1608 CS 152-J	
RD35	61079-918-152	R-CHIP;RH C1608 CS 152-J	
RD36	61079-918-100	R-CHIP;RH C1608 CS 100-J	
RD37	61079-918-221	R-CHIP;RH C1608 CS 221-J	
RD43	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RD44	61079-918-105	R-CHIP;RH C1608 CS 105-J	
RP10	61079-918-391	R-CHIP;RH C1608 CS 391-J	
		EIS PARTS	
CE01	A1106-0150	C-TANTALUM,CHIP;CS 6.3V T 226-M C3528 SCS0J226MR-B	
CE02	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CE05	61454-243-471	C-ELEC.CHIP;ECE-V0JA470P	
CE06	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CE07	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CE10	A1106-0150	C-TANTALUM,CHIP;CS 6.3V T 226-M C3528 SCS0J226MR-B	
CE13	A1100-0776	C-CERAMIC,CHIP;CK 73 Y5V 16V T 224-Z C1608 C1608Y5	
CE14	61454-155-153	C-CERAMIC CHIP;C1608 B1H 153T-K	
CE16	B1104-0694	C-ELEC,CHIP;CE OB -40/85 10V T 330-M ECE-V1AAN330P	

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CE17	A1100-0776	C-CERAMIC,CHIP;CK 73 Y5V 16V T 224-Z C1608 C1608Y5	
CE18	61454-155-153	C-CERAMIC CHIP;C1608 B1H 153T-K	
CE19	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CE20	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CE21	B1104-0694	C-ELEC,CHIP;CE OB -40/85 10V T 330-M ECE-V1AAN330P	
CE22	B1100-0779	C-CERAMIC-CHIP;CK 73 Y5V 16V T 334-Z C1608 GRM39Y5	
CE23	61454-153-101	C-CERAMIC CHIP;C1608 CH1H101JT	
CE24	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CE25	B1100-0779	C-CERAMIC-CHIP;CK 73 Y5V 16V T 334-Z C1608 GRM39Y5	
CE26	61454-153-101	C-CERAMIC CHIP;C1608 CH1H101JT	
CE30	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CE35	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CE37	61454-243-221	C-ELEC.CHIP;ECE-V0JA220R	
CE40	61454-153-151	C-CERAMIC CHIP;C1608 CH1H151JT	
CE42	61454-153-151	C-CERAMIC CHIP;C1608 CH1H151JT	
CE43	61454-153-100	C-CERAMIC CHIP;C1608 CH1H100DT	
CNE01	B6012-0249	CONNECTOR-HOUSING;SD-52365-0891 WHT MOLEX	
DE01	62169-901-031	DIODE.CHIP;MA121-(TX)	
DE02	A4112-0007	DIODE-SCHOTTKY,CHIP;SB01-05CP-(TB) 550V 2A 4.4PF	
DE03	62169-901-077	DIODE.CHIP;MA110-(TX)	
DE04	62169-901-077	DIODE.CHIP;MA110-(TX)	
FD02	A1242-0028	FILTER-LC,CHIP;TR 7.16MHZ TH355TSJ-K5178=P3 T C481	
ICE01	B4002-0724	IC-MCU;CXP811P24R SV-H68 VQFP TRAY	
ICE02	A4004-0380	IC-LOGIC;KS7304 VQFP T	
ICE03	62119-402-030	IC-FP;NJM3414AM(TE3)	
ICE04	B4012-0262	IC-LINEAR;NJM3403AV SOP TAPE(TE1)	
ICE05	B4004-0385	IC-LOGIC;TC4S66F SSOP-5 5P	
ICE06	B4004-0385	IC-LOGIC;TC4S66F SSOP-5 5P	
ICE07	66219-0021-00	SENSOR;ENC-05DA	
ICE08	A4000-0119	IC-MEMORY;KM44C1000CSL-6 SOJ REEL	
ICE09	A4000-0119	IC-MEMORY;KM44C1000CSL-6 SOJ REEL	
ICE10	A4000-0119	IC-MEMORY;KM44C1000CSL-6 SOJ REEL	
ICE11	A4000-0119	IC-MEMORY;KM44C1000CSL-6 SOJ REEL	
LE01	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
LE03	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
RE01	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RE04	61079-918-223	R-CHIP;RH C1608 CS 223-J	
RE05	61079-917-338	R-CHIP;RH C2012 CS 330-J	
RE06	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RE07	61079-918-474	R-CHIP;RH C1608 CS 474-J	
RE08	61079-918-474	R-CHIP;RH C1608 CS 474-J	
RE09	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RE10	61079-918-153	R-CHIP;RH C1608 CS 153-J	
RE11	61079-918-564	R-CHIP;RH C1608 CS 564-J	
RE12	61079-918-473	R-CHIP;RH C1608 CS 473-J	
RE13	61079-918-223	R-CHIP;RH C1608 CS 223-J	
RE14	61079-918-223	R-CHIP;RH C1608 CS 223-J	
RE15	61079-918-223	R-CHIP;RH C1608 CS 223-J	
RE16	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RE17	61079-918-474	R-CHIP;RH C1608 CS 474-J	
RE18	61079-918-474	R-CHIP;RH C1608 CS 474-J	
RE19	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RE20	61079-918-153	R-CHIP;RH C1608 CS 153-J	
RE21	61079-918-564	R-CHIP;RH C1608 CS 564-J	
RE22	61079-918-473	R-CHIP;RH C1608 CS 473-J	
RE30	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RE32	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RE33	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RE35	61079-918-000	R-CHIP;RH C1608 CS 000-J	

Loca. No	Part No	Description & Specification	Remark
RE36	61079-918-152	R-CHIP;RH C1608 CS 152-J	
RE37	61079-918-471	R-CHIP;RH C1608 CS 471-J	
RE38	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RE40	61079-918-104	R-CHIP;RH C1608 CS 104-J	
RE41	61079-918-104	R-CHIP;RH C1608 CS 104-J	
RE42	61079-918-104	R-CHIP;RH C1608 CS 104-J	
RE50	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RE51	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RE53	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RE54	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RE55	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RE56	61079-918-000	R-CHIP;RH C1608 CS 000-J	
		PROCESS PARTS	
CP01	61454-153-220	C-CERAMIC CHIP;C1608 CH1H220JT	
CP02	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
CP03	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CP06	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CP07	61619-908-011	C-ELEC.CHIP;UWX1C100 MCR2GB PI3 10U/16V	
CP08	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CP09	61454-243-221	C-ELEC.CHIP;ECE-V0JA220R	
CP10	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
CP11	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CP12	61454-153-200	C-CERAMIC CHIP;C1608 CH1H200JT	
CP13	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CP14	61619-908-011	C-ELEC.CHIP;UWX1C100 MCR2GB PI3 10U/16V	
CP15	61454-153-220	C-CERAMIC CHIP;C1608 CH1H220JT	
CP16	61619-908-011	C-ELEC.CHIP;UWX1C100 MCR2GB PI3 10U/16V	
BP01	A1247-0050	FILTER-EMI BEAD;CB321611-TA SB 0.2OHM-M T OD1.6/L3	
CP17	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CP20	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CP24	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CP25	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CP26	61454-153-220	C-CERAMIC CHIP;C1608 CH1H220JT	
CP27	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CP28	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CP29	A1106-0149	C-TANTALUM,CHIP;CS 10V T 475-M C3216	
CP91	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
CP92	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
CP93	61454-153-220	C-CERAMIC CHIP;C1608 CH1H220JT	
CTP01	B1111-0025	C-TRIMMER,CERA;TZC03P00A110 CTA 30-6.5PF	
CTP02	B1111-0025	C-TRIMMER,CERA;TZC03P00A110 CTA 30-6.5PF	
DP01	62169-901-030	DIODE.CHIP;MA141WK-(TX)	
DP04	62169-901-077	DIODE.CHIP;MA110-(TX)	
DP05	62169-901-077	DIODE.CHIP;MA110-(TX)	
DP06	62169-901-077	DIODE.CHIP;MA110-(TX)	
DP91	62169-901-068	DIODE.CHIP;MA341-(TX)	
FP01	A1240-0070	FILTER-LC;LP 5.5M TH486LSK-K7003	
ICP01	A4004-0187	IC-LOGIC;KS7301 QFP	
ICP02	A4004-0873	IC-LOGIC;KDA0408 VQFP	
ICP03	B4004-0385	IC-LOGIC;TC4S66F SSOP-5 5P	
ICP04	B4004-0340	IC-LOGIC;TC7W04FU-TE12L SOP TAPE 8P	
LP01	B1160-0011	INDUCTOR,CHIP;10UH-K 73 NLC322522T-100K C3225	
LP02	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
LP03	B1160-0009	INDUCTOR,CHIP;22UH-K 73 NLC322522T-220K C3225	
LP04	B1160-0055	INDUCTOR,CHIP;68UH-J 73 NL252018T-680J C2520	
QP03	62129-301-117	TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA	
QP04	62129-301-117	TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA	
QP05	62129-301-117	TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA	
QP06	62129-301-117	TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA	

Loca. No	Part No	Description & Specification	Remark
QP07	62129-301-117	TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA	
QP08	62129-301-117	TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA	
QP09	62129-301-117	TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA	
QP10	62129-301-117	TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA	
QP11	62129-301-117	TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA	
QP12	A4050-0124	TR-GENERAL,CHIP;DTC144EU(T106) 200MW 100MA 250MHZ	
QP91	62129-301-117	TRANSISTOR.CHIP;2SC 2812(REEL)L6-TA	
RP01	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RP02	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RP03	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RP05	61079-918-153	R-CHIP;RH C1608 CS 153-J	
RP07	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RP08	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RP09	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RP100	61079-918-332	R-CHIP;RH C1608 CS 332-J	
RP11	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RP12	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RP13	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RP15	61079-918-102	R-CHIP;RH C1608 CS 102-J	
RP16	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RP17	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RP18	61079-918-242	R-CHIP;RH C1608 CS 242-J	
RP19	A1020-0617	R-CHIP;RH 1/16 CS 221-F C1608	
RP20	A1020-0591	R-CHIP;RH 1/16 CS 102-F C1608	
RP21	61079-918-153	R-CHIP;RH C1608 CS 153-J	
RP22	61079-918-333	R-CHIP;RH C1608 CS 333-J	
RP23	61079-918-472	R-CHIP;RH C1608 CS 472-J	
RP24	A1020-0641	R-CHIP;RH 1/16 CS 391-F C1608	
RP25	A1020-0650	R-CHIP;RH 1/16 CS 471-F C1608	
RP26	A1020-0650	R-CHIP;RH 1/16 CS 471-F C1608	
RP27	A1020-0603	R-CHIP;RH 1/16 CS 152-F C1608	
RP28	A1020-0607	R-CHIP;RH 1/16 CS 162-F C1608	
RP29	A1020-0454	R-CHIP;RH 1/16 CS 511-J C1608 RMC 1/16 510-J	
RP30	61079-918-750	R-CHIP;RH C1608 CS 750-J	
RP31	61079-918-242	R-CHIP;RH C1608 CS 242-J	
RP32	A1020-0591	R-CHIP;RH 1/16 CS 102-F C1608	
RP33	A1020-0597	R-CHIP;RH 1/16 CS 122-F C1608	
RP34	61079-918-472	R-CHIP;RH C1608 CS 472-J	
RP35	A1020-0650	R-CHIP;RH 1/16 CS 471-F C1608	
RP36	A1020-0627	R-CHIP;RH 1/16 CS 273-F C1608	
RP37	A1020-0618	R-CHIP;RH 1/16 CS 222-F C1608	
RP38	61079-918-242	R-CHIP;RH C1608 CS 242-J	
RP39	A1020-0591	R-CHIP;RH 1/16 CS 102-F C1608	
RP40	A1020-0641	R-CHIP;RH 1/16 CS 391-F C1608	
RP41	A1020-0618	R-CHIP;RH 1/16 CS 222-F C1608	
RP42	A1020-0591	R-CHIP;RH 1/16 CS 102-F C1608	
RP43	A1020-0607	R-CHIP;RH 1/16 CS 162-F C1608	
RP44	A1020-0454	R-CHIP;RH 1/16 CS 511-J C1608 RMC 1/16 510-J	
RP45	61079-918-104	R-CHIP;RH C1608 CS 104-J	
RP50	61079-918-392	R-CHIP;RH C1608 CS 392-J	
RP51	61079-918-471	R-CHIP;RH C1608 CS 471-J	
RP52	61079-918-471	R-CHIP;RH C1608 CS 471-J	
RP53	61079-918-471	R-CHIP;RH C1608 CS 471-J	
RP54	61079-918-471	R-CHIP;RH C1608 CS 471-J	
RP55	61079-918-471	R-CHIP;RH C1608 CS 471-J	
RP56	61079-918-471	R-CHIP;RH C1608 CS 471-J	
RP57	61079-918-471	R-CHIP;RH C1608 CS 471-J	
RP58	61079-918-471	R-CHIP;RH C1608 CS 471-J	
RP69	61079-918-101	R-CHIP;RH C1608 CS 101-J	

Loca. No	Part No	Description & Specification	Remark
RP70	61079-918-101	R-CHIP;RH C1608 CS 101-J	
RP71	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RP72	61079-918-104	R-CHIP;RH C1608 CS 104-J	
RP77	61079-918-560	R-CHIP;RH C1608 CS 560-J	
RP78	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RP79	61079-918-000	R-CHIP;RH C1608 CS 000-J	
RP81	A1020-0633	R-CHIP;RH 1/16 CS 303-F C1608	
RP91	61079-918-682	R-CHIP;RH C1608 CS 682-J	
RP92	61079-918-472	R-CHIP;RH C1608 CS 472-J	
RP93	61079-918-103	R-CHIP;RH C1608 CS 103-J	
RP94	61079-918-000	R-CHIP;RH C1608 CS 000-J	
XP01	B1280-0144	CRYSTAL;28.375MHZ CX-49F 30PPM CHIP TAPING	
XP02	B1280-0110	CRYSTAL;17.734476MHZ CX-49F 100PPM CHIP	
157	**69063-214-900**	**ASSY CCD BOARD;VP-H68 PAL**	
C901	A1106-0025	C-TANTALUM,CHIP;CS 20V T 105-M C3216 SCS1D105MR-A	
C902	A1106-0155	C-TANTALUM,CHIP;CS 6.3V T 476-M C6032 SCS0J476MR-C	
C903	61454-154-103	C-CERAMIC CHIP;C1608 B1H 103KT	
C904	A1106-0034	C-TANTALUM,CHIP;CS 25V T 335-M C3528 SCS1E335MR-B	
C905	61454-154-102	C-CERAMIC CHIP;C1608 B1H 102KT	
C906	A1106-0034	C-TANTALUM,CHIP;CS 25V T 335-M C3528 SCS1E335MR-B	
CN901	B6010-1686	CONNECTOR-WAFER;SD-53309-1891 WHT MOLEX	
IC901	B4014-0054	IC-CCD;ICX059AK DIP 16P	
Q901	B4054-0073	FET;2SK1070 150MW 50MA -22V MOS/P-CHANNEL	
R901	61079-918-392	R-CHIP;RH C1608 CS 392-J	
R902	61079-918-101	R-CHIP;RH C1608 CS 101-J	
R903	61079-918-104	R-CHIP;RH C1608 CS 104-J	
R904	61079-918-393	R-CHIP;RH C1608 CS 393-J	
R905	61079-918-821	R-CHIP;RH C1608 CS 821-J	
R906	61079-918-105	R-CHIP;RH C1608 CS 105-J	
158	**69063-214-901**	**ASSY EIS BOARD;VP-H68 PAL**	
CE12	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CE33	61454-243-221	C-ELEC.CHIP;ECE-V0JA220R	
CE36	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CE38	61454-243-221	C-ELEC.CHIP;ECE-V0JA220R	
CE45	61454-159-104	C-CERAMIC CHIP;C1608 F1E 104T-Z	
CNE02	B6010-1558	CONNECTOR-WAFER;SD-53268-0891 WHT MOLEX	
ICE12	66219-0022-00	SENSOR;ENC-05DB	
RE02	61079-918-223	R-CHIP;RH C1608 CS 223-J	
RE03	61079-918-223	R-CHIP;RH C1608 CS 223-J	
RE25	61079-917-338	R-CHIP;RH C2012 CS 330-J	
	A7008-0097	ADAPTER;AA-E2/SEG	
	A7008-0108	ADAPTER;AA-E2/SEUK	
	A7008-0109	ADAPTER;AA-E2/SEAU	
-	-	ASSY MAIN BOARD;AA-E2P/SAMSUNG	
C10	B1102-0333	C-FILM;CFS 992 MPE 250V 224-M -40/85 ECQU2A224MT	
C11	A1100-0450	C-CERAMIC;CK 45 B 400V 222-K CK45B500V222K	
C12	A1100-0450	C-CERAMIC;CK 45 B 400V 222-K CK45B500V222K	
C13	A1104-0719	C-ELEC;CE 04 -25/85 400V 470-M X SHL400VB47M 18X20	
C14	A1100-0450	C-CERAMIC;CK 45 B 400V 222-K CK45B500V222K	
C15	A1100-0450	C-CERAMIC;CK 45 B 400V 222-K CK45B500V222K	
C16	A1102-0219	C-FILM;CQ 922 P 630V T 103-K SC-ARD135	
C17	A1100-0010	C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102	
C18	61637-208-229	C-ELEC;CEAP 50V 2.2M SA (5X11)	
C19	A1100-0071	C-CERAMIC,CHIP;CC 73 COG 50V T 391-J C2012 21C 391	
C20	A1100-1000	C-CERAMIC,CHIP;CK 73 Z5U 50V T 154-Z C2012 2012154	
C21	61637-206-330	C-ELEC;CEAP 35V 33M SA(6X11)	
C22	61637-508-101	C-ELEC-CEAP 50V 100M SG(10X12.5)	
C23	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
C50	61647-702-470	C-ELEC;CEAP 6.3V 47M SS(2.5)	

Loca. No	Part No	Description & Specification	Remark
C51	A1100-0010	C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102	
C52	A1100-0010	C-CERAMIC,CHIP;CK 73 X7R 50V T 102-K C2012 21B 102	
C53	61637-504-102	C-ELEC;CEAP 16V 1000M SG(10X20)	
C54	A1104-0480	C-ELEC;CE 04 F 16V T 471-M STX/KME -40/105	
C55	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
C56	A1100-0011	C-CERAMIC,CHIP;CK 73 X7R 50V T 103-K C2012 21B103K	
C57	61647-708-010	C-ELEC;CEAP 50V 1M SS(2.5)	
C59	61617-408-479	C-ELEC;CEAP 50V 4.7M RSS(4X7)	
C60	61453-131-105	C-CERAMIC.CHIP;GRM42-6Y5V105Z16 TAPG	
C61	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
C62	B1100-0674	C-CERAMIC,CHIP;CK 73 Y5V 16V T 685-Z C3225	
C64	61417-109-210	C-CERAMIC.HK;CK45F TAPG 50V 104-Z	
C65	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
C66	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
C67	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
D10	B4104-0065	DIODE-RECT;S1WB60 600V 1A BRIDGE GE	
D11	B4112-0006	DIODE-SCHOTTKY;ERA22-10 1KV 0.5A 0.5PF/1KV	
D12	62169-901-077	DIODE.CHIP;MA110-(TX)	⚠
D13	B4106-0240	DIODE-ZENER,CHIP;RD20S-B 20V 100MA T	
D14	B4106-0239	DIODE-ZENER,CHIP;RD4.7S-B 4.7V 100MA T	
D15	B4106-0241	DIODE-ZENER,CHIP;RD24S-B 24V 100MA T	
D16	B4112-0006	DIODE-SCHOTTKY;ERA22-10 1KV 0.5A 0.5PF/1KV	
D17	B4112-0006	DIODE-SCHOTTKY;ERA22-10 1KV 0.5A 0.5PF/1KV	
D51	B4112-0002	DIODE-SCHOTTKY;ESAC85M-009 90V 10A 0.9PF/0.3V	
D52	62169-501-064	DIODE;1N5819(ERB 81-004)V	
D53	A4114-0009	DIODE-ARRAY,CHIP;DAN202K 80V 100MA 4NS CA2-3 T	
D54	62169-901-096	DIODE-CHIP;DAP202K (T96)	
D55	62169-901-077	DIODE.CHIP;MA110-(TX)	
D57	B4106-0238	DIODE-ZENER,CHIP;RD5.1S-B2 5.1V 100MA T	
F10	B3065-0202	FUSE;DEMKO FST 250V 1.25A 5X20MM S505 C HBC	⚠
IC11	B4008-1207	IC;FA5304S SOP 8P TAPE	⚠
IC12	B4010-0011	IC-HYBRID;PC113(LY) DIP	⚠
IC12	B4161-0037	PHOTO-COUPLER;TLP621-GR ST	
IC51	62119-402-030	IC-FP;NJM3414AM(TE3)	
IC52	A4008-1209	IC;TK11640N TO-92S 3P TAPE	
IC53	67199-0260-00	MICOM;TMP47C241NFF34 CS95 QFP	⚠
J51	B3040-0068	JACK-DC;PI3 HEC0740-01-010 3P	⚠
L10	A1151-0001	COIL-LINE FILTER;BSF-2123 20MH 10OHM	⚠
L11	A1247-0053	FILTER-EMI BEAD;BFS3565A0L SB 100OHM/100MHZ-90OHM	
L51	A1132-0008	COIL-PEAKING;10UH-J RA EL0606RA-100J Q80 F22MHZ	
L52	A1130-0020	COIL-CHOKE;100UH-J RA 1KHZ PI0.35	
LED51	B4150-0287	LED-DISPLAY;LN086WP38 ORG/GRN PI1.8	
PWR01	A6006-0283	POWER-CORD;CP2 KJ-0201 1.83MT YH396-32V BLK 35MM 2	
Q10	B4054-0052	FET;2SK903M-F155 40W 3A 800V MOS/N-CHANNEL ST	⚠
Q51	B4052-0027	TR-HIGH POWER;2SB1127S 10W 5A 320MHZ 25V SI/PNP	
Q52	62129-101-110	TRANSISTOR.CHIP;KSR 1102 (REEL)	
Q53	62149-201-016	TRANSISTOR;2SB 1203S	
Q54	62129-101-110	TRANSISTOR.CHIP;KSR 1102 (REEL)	
Q55	62129-101-140	TRANSISTOR.CHIP;KSR 2104(REEL)	
Q56	62129-101-140	TRANSISTOR.CHIP;KSR 2104(REEL)	
Q57	62129-101-140	TRANSISTOR.CHIP;KSR 2104(REEL)	
R01	61079-917-000	R-CHIP;RH C2012 CS 000-J	
R02	61079-917-000	R-CHIP;RH C2012 CS 000-J	
R03	61079-917-000	R-CHIP;RH C2012 CS 000-J	
R04	61079-917-000	R-CHIP;RH C2012 CS 000-J	
R05	61079-217-000	R-CHIP;RH C3216 CS 000-J	
R06	61079-217-000	R-CHIP;RH C3216 CS 000-J	
R10	61048-277-275	R-CARBON;RD 1/4 T 275-J	
R12	A1014-0079	R-CEMENT;RWC 2W I 3R3-J ST ABCO	

Loca. No	Part No	Description & Specification	Remark
R13	61048-177-823	R-CARBON;RD 1/8 T 823-J	
R14	61048-177-823	R-CARBON;RD 1/8 T 823-J	
R15	A1020-0837	R-CHIP;RH 1/8 CS 823-J 3216	
R16	61048-177-823	R-CARBON;RD 1/8 T 823-J	
R17	61049-527-473	R-METAL OXIDE;RS 2 P 473-J	
R19	A1004-0220	R-METAL OXIDE;RS 1 P R47-J	
R20	61079-917-221	R-CHIP;RH C2012 CS 221-J	
R21	61079-917-338	R-CHIP;RH C2012 CS 330-J	
R22	61079-917-155	R-CHIP;RH C2012 CS 155-J	
R24	61079-917-338	R-CHIP;RH C2012 CS 330-J	
R25	61079-917-822	R-CHIP;RH C2012 CS 822-J	
R51	61079-217-100	R-CHIP;RH C3216 CS 100-J	
R52	A1020-0381	R-CHIP;RH 1/10 CS 272-F C2012 MCR/RMC	
R53	61079-916-122	R-CHIP;RH C2012 CS 122-F	
R54	A1020-0388	R-CHIP;RH 1/10 CS 331-F C2012 MCR/RMC	
R55	61079-917-104	R-CHIP;RH C2012 CS 104-J	
R56	61079-917-221	R-CHIP;RH C2012 CS 221-J	
R57	61079-917-272	R-CHIP;RH C2012 CS 272-J	
R58	61079-917-104	R-CHIP;RH C2012 CS 104-J	
R59	61079-917-120	R-CHIP;RH C2012 CS 120-J	
R60	61079-916-471	R-CHIP;RH C2012 CS 471-F	
R61	61079-916-122	R-CHIP;RH C2012 CS 122-F	
R62	61079-916-472	R-CHIP;RH C2012 CS 472-F	
R63	61079-916-472	R-CHIP;RH C2012 CS 472-F	
R64	61079-917-270	R-CHIP;RH C2012 CS 270-J	
R65	A1004-0221	R-METAL OXIDE;RS 1 P 0R1-J	
R66	61079-917-123	R-CHIP;RH C2012 CS 123-J	
R67	61079-917-122	R-CHIP;RH C2012 CS 122-J	
R68	61079-917-182	R-CHIP;RH C2012 CS 182-J	
R69	61079-917-471	R-CHIP;RH C2012 CS 471-J	
R70	B1004-0442	R-METAL OXIDE;RS 3W N 43-J ERG3SJ430H	
R71	61079-917-103	R-CHIP;RH C2012 CS 103-J	
R72	61079-917-103	R-CHIP;RH C2012 CS 103-J	
R73	61079-917-101	R-CHIP;RH C2012 CS 101-J	
R74	B1004-0442	R-METAL OXIDE;RS 3W N 43-J ERG3SJ430H	
R75	61079-917-153	R-CHIP;RH C2012 CS 153-J	
R76	61079-917-153	R-CHIP;RH C2012 CS 153-J	
R77	61079-917-103	R-CHIP;RH C2012 CS 103-J	
R78	61079-917-153	R-CHIP;RH C2012 CS 153-J	
R79	61079-917-103	R-CHIP;RH C2012 CS 103-J	
R80	61079-917-391	R-CHIP;RH C2012 CS 391-J	
R81	61079-917-153	R-CHIP;RH C2012 CS 153-J	
R82	61079-917-272	R-CHIP;RH C2012 CS 272-J	
R83	61079-917-391	R-CHIP;RH C2012 CS 391-J	
R84	61079-917-273	R-CHIP;RH C2012 CS 273-J	
R85	61079-917-153	R-CHIP;RH C2012 CS 153-J	
R86	61079-917-273	R-CHIP;RH C2012 CS 273-J	
R87	61049-327-101	R-METAL OXIDE;RS 1 P 101-J	
R90	61079-217-470	R-CHIP;RH C3216 CS 470-J	
R91	61079-217-470	R-CHIP;RH C3216 CS 470-J	
R92	61079-217-470	R-CHIP;RH C3216 CS 470-J	
R93	61079-217-470	R-CHIP;RH C3216 CS 470-J	
R94	61079-917-273	R-CHIP;RH C2012 CS 273-J	
R95	61079-917-122	R-CHIP;RH C2012 CS 122-J	
R96	61079-917-182	R-CHIP;RH C2012 CS 182-J	
SW51	B3018-0071	SW-TACT,V;EVQ214-07K 6X6X7 1KEY T DC15V20MA SPST	
T10	A1199-0020	TRANS-POWER;EI25X19 AC90/260V 50HZ AC5.1V B DEMKO	⚠
W10	A6010-0459	CONNECTOR-WAFER;YW396-02V WHT	
XT51	64539-102-012	CERAMIC RESONATOR;FCR 4.0MC5	

8. EXPLODED VIEW / PARTS LIST

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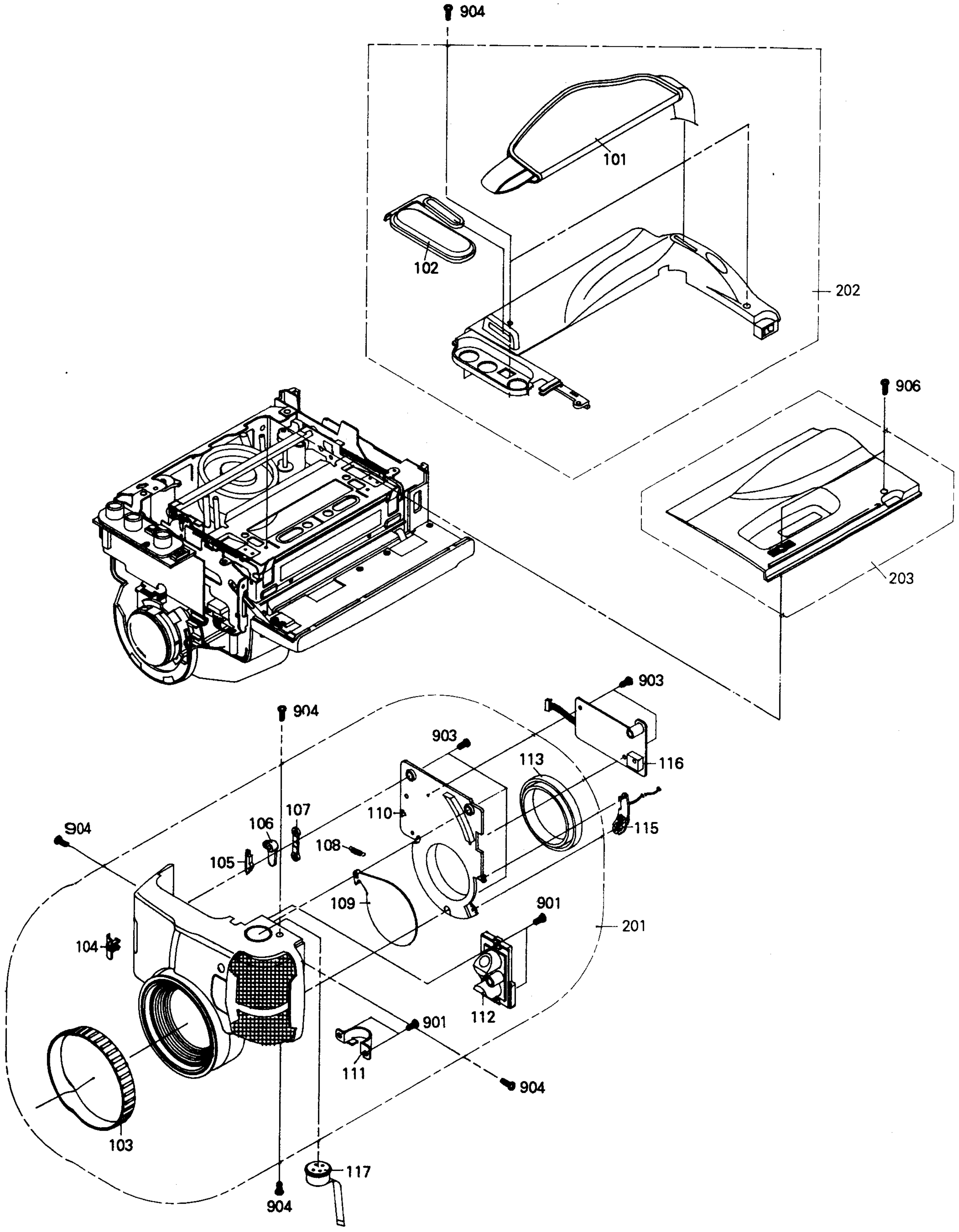
8-7. MECHANICAL PARTS (3) ------------------ 8-8

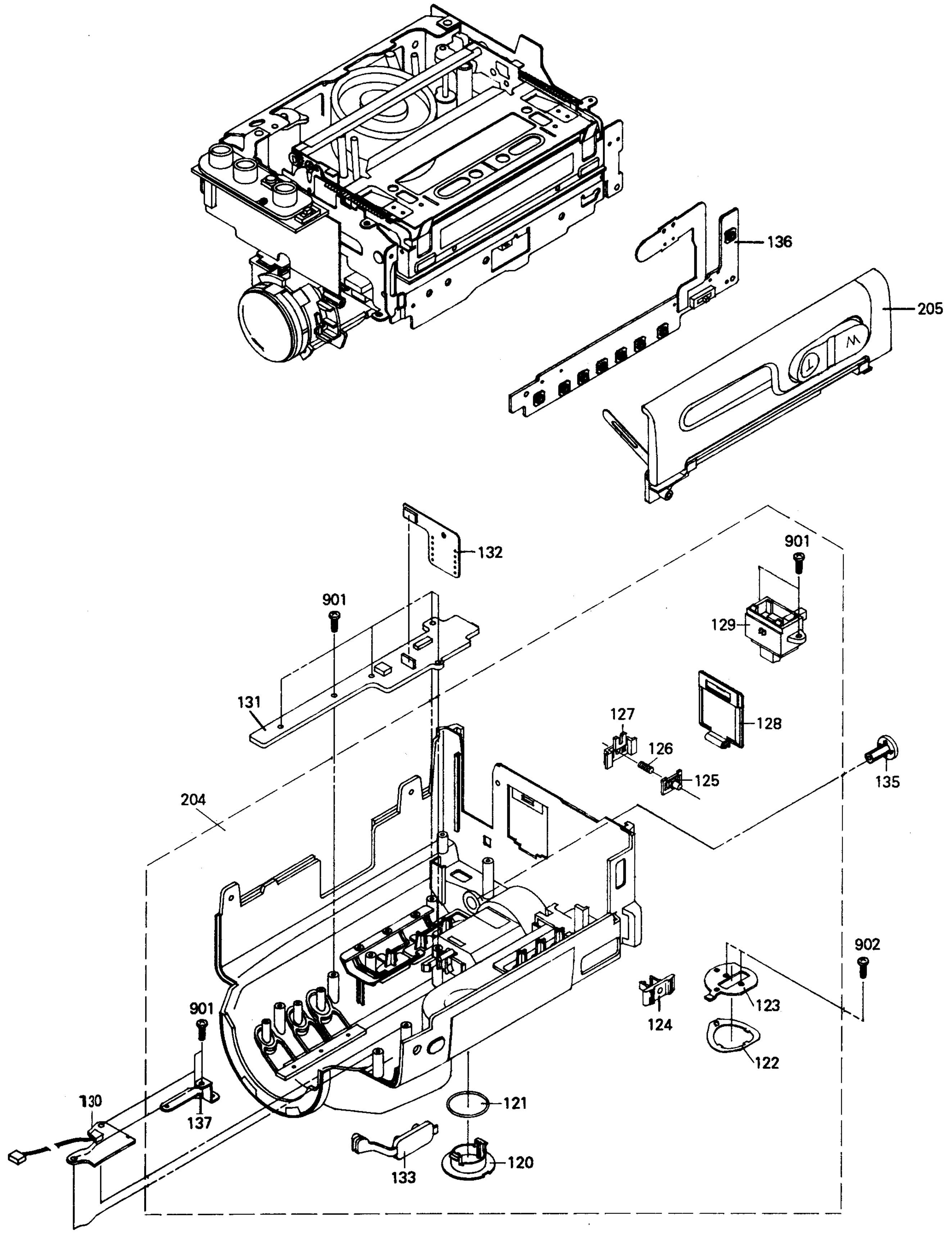
Memo

8-1. INSTRUMENT ASSEMBLY (1)



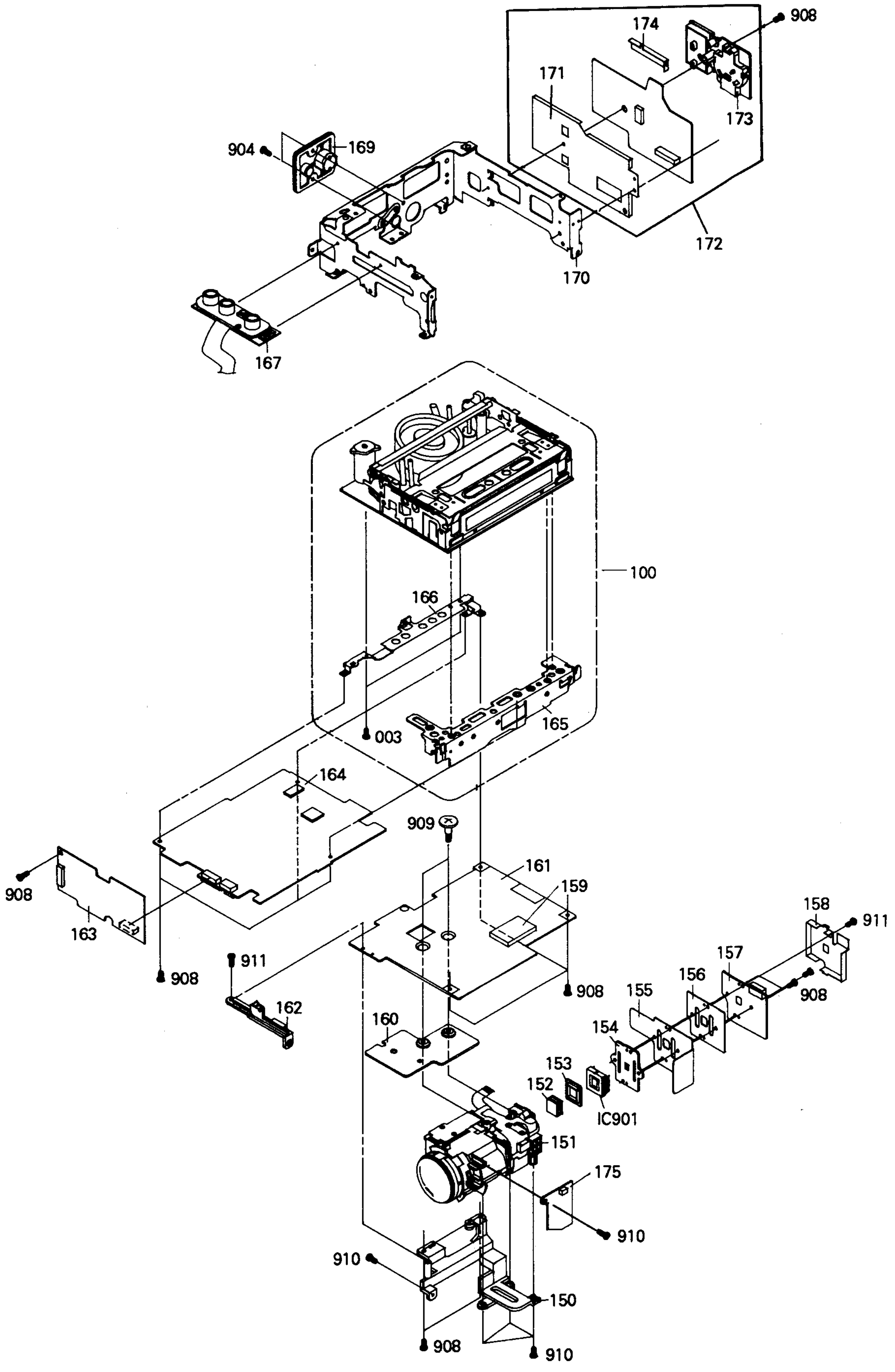
Loca. No	Part No	Description & Specification	Remark
101	67179-0211-00	UNIT-BELT GRIP(ASSY);SV-H66	
102	63314-0050-00	COVER-A/V JACK;TPE T1.5 BLK	
103	62024-0028-00	BAND-MANUAL RING;SILICON T1.0 BLK SV-H66	
104	64083-0577-00	KNOB-COVER;ABS94HB GRY SV-H66	
105	63323-0393-00	HOLDER-KNOB COVER;POM NTR SV-H66	
106	60572-0027-00	RING-MANUAL;PC OD53 BLK T1.2 SV-H66	
107	63034-0026-00	ROD-COVER;POM BLK SV-H425	
108	66674-641-810	SPRING-KNOB EJECT;SUS304 WPB	
109	63313-0185-00	COVER-LENS;ABS94HB T0.8 GRY SV-H66	
110	63322-0387-00	HOLDER-COVER(LENS);ABS94HB BLK SV-H66	
111	63014-0254-00	BRACKET-JACK;SECC T0.8 SV-H66	
112	69063-214-607	ASSY MIC;ECM-SO 6H SV-H66	
113	63354-0097-00	GUIDE-RUBBER(LENS);NBR BLK T1.5 SV-H66	
115	69063-214-692	ASSY MANUAL FOCUS BOARD;SV-H66 NTSC	
116	69063-214-599	ASSY MIC BOARD;SV-H66 NTSC	
117	69063-214-594	ASSY S-JACK BOARD;SV-H66 NTSC	
201	69063-214-998	ASSY CASE FRONT;VP-H68/SEG PAL	
202	69063-214-747	ASSY CASE RIGHT;VP-H66/SEG(PAL)	
203	69063-214-743	ASSY COVER HOUSING;VP-H66/SEG(PAL)	
901	67128-521-206	SCREW-TAP TITE BH;3B+2X6 FE FZB	
903	67128-522-240	SCREW-TAP TITE BH;2X4 FE FZB	
904	67094-120-240	SCREW-BH;M2X4 FE FZB	
906	A0100-0137	SCREW-MACHINE;BH UP M1.7 5.5 SWRCH10A ZPC2 BLK	

8-2. INSTRUMENT ASSEMBLY (2)



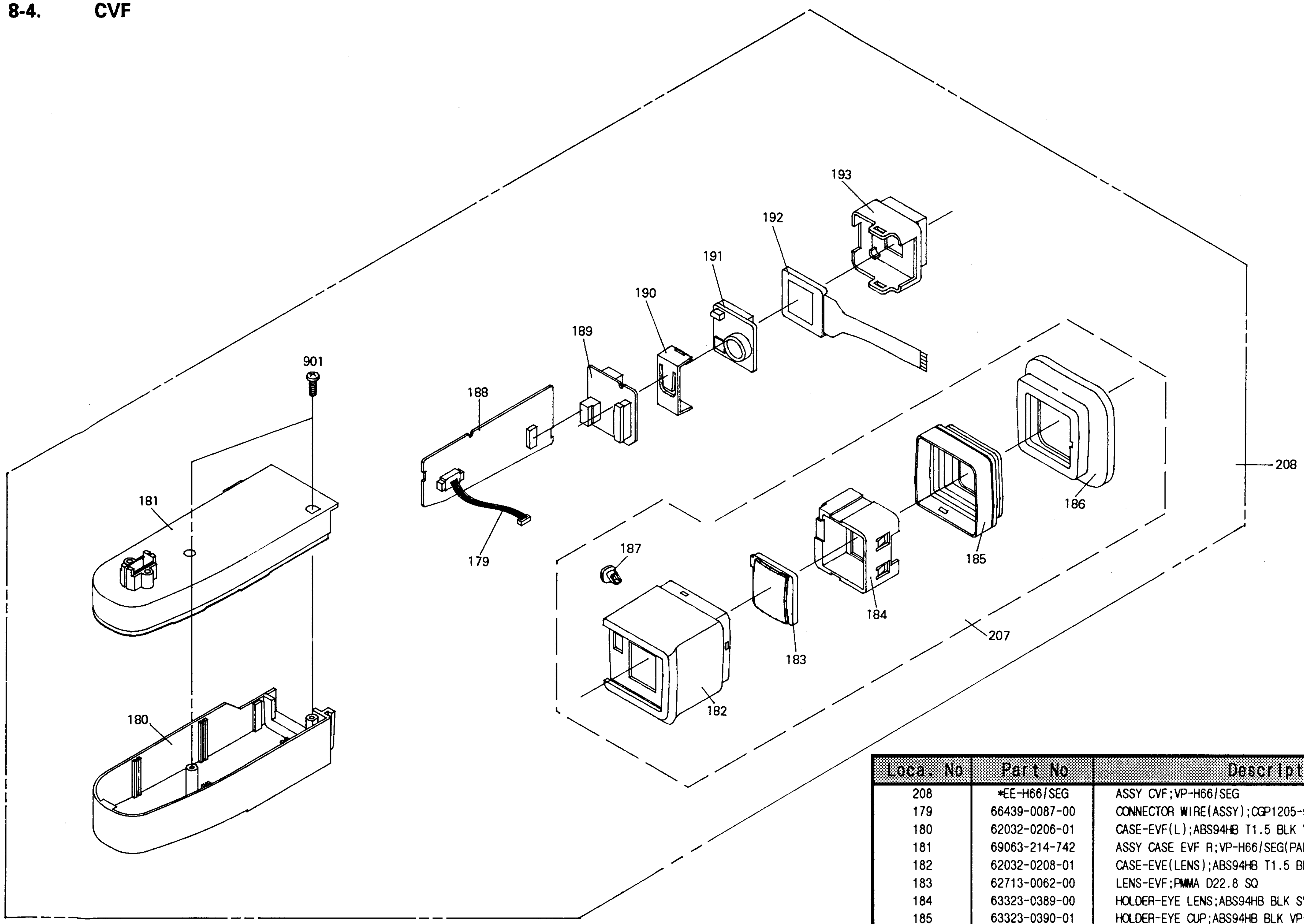
Loca. No	Part No	Description & Specification	Remark
120	61644-0020-00	SLIDER-RING ROTATE EVF;POM T1 BLK(VN-E405)	
121	63394-0053-00	RUBBER-RING EVF;SILICON BLK	
122	60104-0028-00	PLATE-SPRING EVF;C1720S T0.4 VN-E405	
123	63074-0010-00	SUPPORT-EVF;STS T0.8 VN-E405	
124	64083-0573-00	KNOB-POWER;ABS94HB GRY SV-H66	
125	63384-0033-00	STOPPER-POWER;ABS94HB T1.0 GRN SV-H66	
126	66674-641-610	SPRING-KNOB POWER;SUS304 WPB	
127	63324-0381-00	HOLDER-POWER;POM NTR SV-H66	
128	63314-0123-00	COVER-LI BATTERY;PP T1.5 BLK VN-U12	
129	69063-214-667	ASSY-BATT EJECTOR;SV-H66	
130	69063-214-699	ASSY LIGHT BOARD;SV-H66	
131	69063-214-697	ASSY FUNCTION CAM BOARD;SV-H66 NTSC	
132	69063-214-698	ASSY FUNCTION ROTARY BOARD;SV-H66	
133	63313-0186-00	CAP-LIGHT JACK;TPR T2.0 BLK SV-H66	
135	63314-0095-00	CAP-JACK;PP T1.5 BLK	
136	69063-214-696	ASSY FUNCTION VTR BOARD;SV-H66 NTSC	
137	63013-0267-00	BRACKET-CASE(L/F);SECC T0.8 SV-H66	
204	69063-214-999	ASSY CASE LEFT;VP-H68/SEG PAL	
205	69063-214-744	ASSY CASE COVER;VP-H66/SEG(PAL)	
901	67128-521-206	SCREW-TAP TITE BH;3B+2X6 FE FZB	
902	67128-520-206	SCREW-TAP TITE PLAIN;B+2X6 FE FZB	

8-3. INSTRUMENT ASSEMBLY (3)



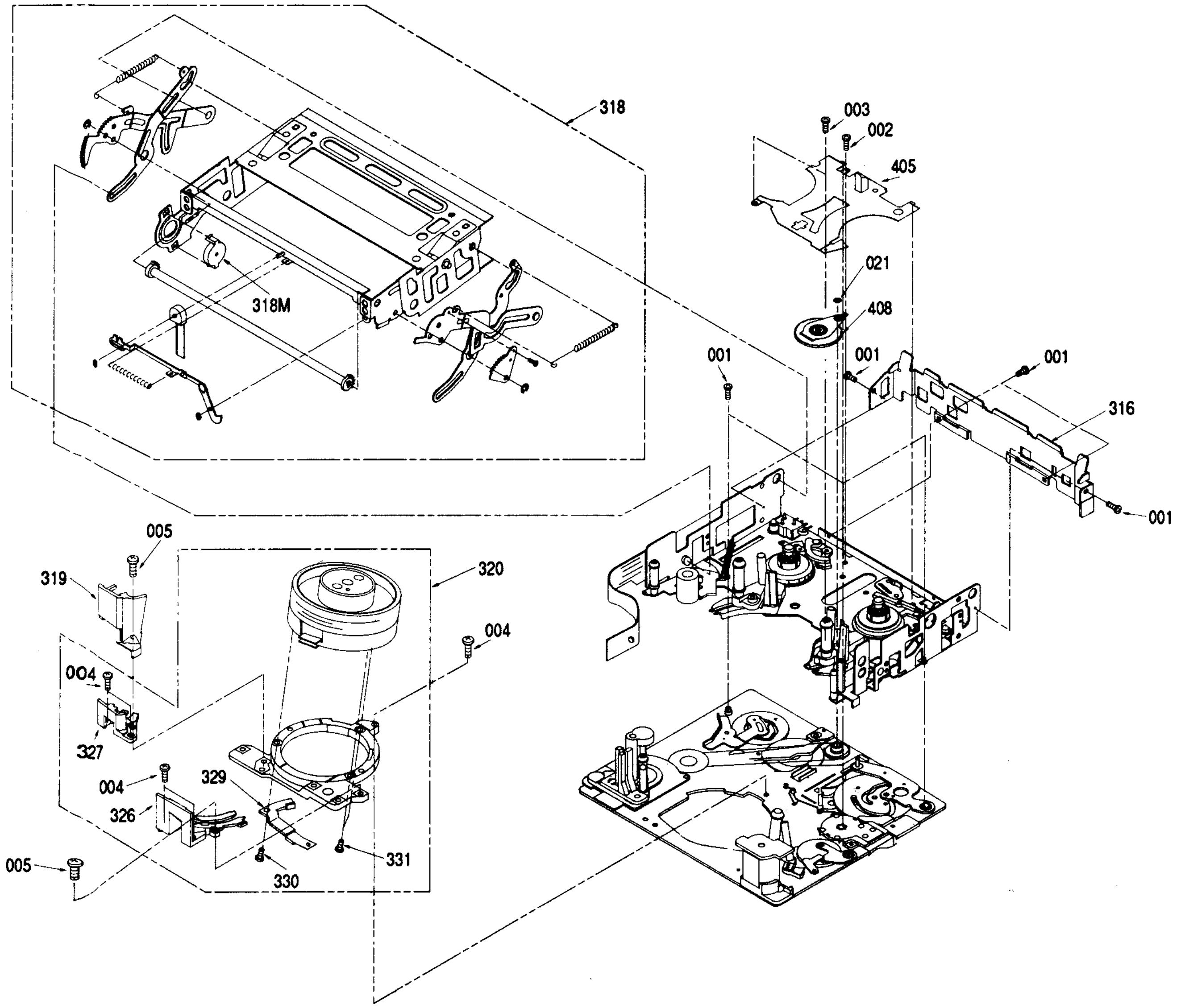
Loca. No	Part No	Description & Specification	Remark
003	60504-0017-00	SCREW;BH + FP M1.4 L2.2 S45C-HC BLK	
100	DE-4UHP	ASSY COMPACTDECK;8MM PI40 3HD HI BAND PAL	
150	62212-0098-00	FRAME-LENS;ABS94HB T1.5 BLK SV-H66	
151	69063-214-893	ASSY ZOOM LENS;SEC 12X D28	
152	B1254-0004	FILTER-OLP;SV-516 -40/85	
153	63304-0025-00	SPACER-CCD;SILICON T2 W31 L29 SV-H66	
154	63474-0055-00	PLATE-CCD;SECC T1.2 SV-H66	
155	61123-0040-00	HEAT SINK-CCD;BSP T0.3 SV-H66	
156	60244-0100-00	INSULATION-CCD;PE T0.2 W31 L29 SV-H66	
157	69063-214-900	ASSY CCD BOARD;VP-H68 PAL	
158	62073-0251-00	SHIELD-CASE CCD;SPTE T0.25 WHT SV-H66	
159	62073-0292-00	SHIELD-CASE CAMERA(TOP);SPTE T0.25 WHT SV-H66	
160	63393-0091-00	RUBBER-CAMERA(PCB);NBR SV-H66	
161	69063-214-899	ASSY CAM MAIN BOARD;VP-H68 PAL	
162	63323-0395-00	HOLDER-CAMERA(PCB);ABS94HB BLK SV-H66	
163	69063-214-799	ASSY AUDIO BOARD;VP-H66 PAL	
164	69063-214-723	ASSY VCR MAIN BOARD;VP-H66 PAL	
165	63012-0251-00	BRACKET-DECK(TOP);AL T0.8 SV-H66	
166	63013-0252-00	BRACKET-DECK(BOT);STS304 T0.4 SV-H66	
167	69063-214-595	ASSY A/V JACK BOARD;SV-H66 NTSC	
169	63323-0064-00	HOLDER-TRIOD;ABS94HB+SUS T1.5 VN-E405	
170	62211-0036-01	FRAME-MAIN;ALP T0.8 SV-H66	
171	62073-0248-00	SHIELD-CASE D/D;SPTE T0.25 WHT SV-H66	
172	69063-214-597	ASSY DC/DC BOARD;SV-H66 NTSC	
173	67179-0210-00	UNIT-BATTERY ASSY;SV-H66	
174	62074-0281-00	SHIELD-CASE BATTERY;SPTE T0.25 SIL SV-H66	
175	69063-214-901	ASSY EIS BOARD;VP-H68 PAL	
904	67094-120-240	SCREW-BH;M2X4 FE FZB	
908	67094-604-310	SCREW-BH;3+M2X3 FE FZW	
909	60504-0105-00	SCREW-TAP TITE;BH M1.7X5.8 SWRCH 10A ZP4 BLK	
910	A0102-0026	SCREW-TAP TITE;BH M1.7 5 SWRCH10A ZPC2 BLK TB	
911	A0102-0027	SCREW-TAP TITE;BH M1.7 8 SWRCH10A ZPC2 BLK TB	
IC901	B4014-0054	IC-CCD;ICX059AK DIP 16P	

8-4. CVF



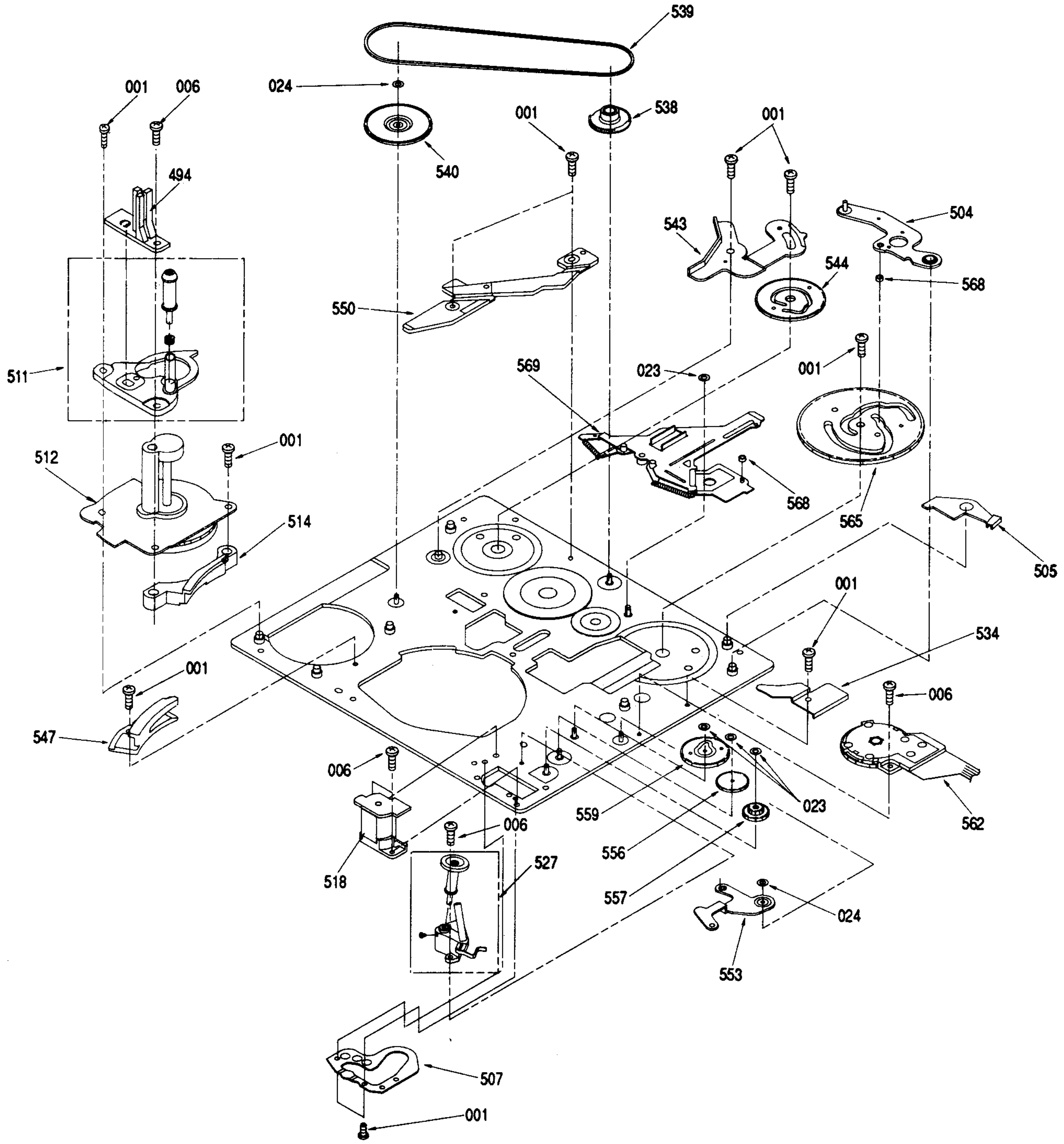
Loca. No	Part No	Description & Specification	Remark
208	*EE-H66/SEG	ASSY CVF;VP-H66/SEG	
179	66439-0087-00	CONNECTOR WIRE(ASSY);CGP1205-51021/5P 1571/#28 120	
180	62032-0206-01	CASE-EVF(L);ABS94HB T1.5 BLK VP-H66/SEG	
181	69063-214-742	ASSY CASE EVF R;VP-H66/SEG(PAL)	
182	62032-0208-01	CASE-EVE(LENS);ABS94HB T1.5 BLK VP-H66/SEG	
183	62713-0062-00	LENS-EVF;PMMA D22.8 SQ	
184	63323-0389-00	HOLDER-EYE LENS;ABS94HB BLK SV-H66	
185	63323-0390-01	HOLDER-EYE CUP;ABS94HB BLK VP-H66/SEG	
186	63393-0090-00	RUBBER-EYE CUP;SILICON SV-H66	
187	64084-0578-00	KNOB-EYE(LENS);ABS94HB BLK SV-H66	
188	69063-214-725	ASSY PROCESS BOARD;VP-H66 PAL	
189	69063-214-726	ASSY DRIVE BOARD;VP-H66 PAL	
190	63314-0164-00	COVER-LCD;ABS94HB T1.2 BLK	
191	69063-213-568	ASSY BACK LIGHT BOARD;SANYO B/L	
192	B4155-0066	LCD;LCX005AKB-8	
193	63323-0388-00	HOLDER-LCD;ABS94HB BLK SV-H66	
207	69063-214-748	ASSY CASE EYE LENS;VP-H66/SEG(PAL)	
901	67128-521-206	SCREW-TAP TITE BH;3B+2X6 FE FZB	

8-5. MECHANICAL PARTS (1)



Loca. No	Part No	Description & Specification	Remark
001	60504-0005-00	SCREW-BH;BH + M1.4 L2 WHT	
002	60504-0015-00	SCREW;BH + FP M1.4 L1.2 S45C-HC BLK	
003	60504-0017-00	SCREW;BH + FP M1.4 L2.2 S45C-HC BLK	
004	60504-0038-00	SCREW-MACHINE;BH B M1.7 L5 FE WHT	
005	60504-0039-00	SCREW-MACHINE;BH B M1.7 L8 FE WHT	
021	60534-0005-00	WASHER-SLIT;ID0.75 OD2.0 T0.2 POLYSLIDER	
316	63312-0011-00	COVER-BACK;A5052 BLK T0.6	
318	62051-0012-00	HOUSING-ASS'Y;STS304/STS303 T0.5 DE-4	
318M	62663-0014-00	DAMPER-HOUSING;SUS/POM/NYLON 30G DE-2A	
319	63353-0057-00	GUIDE-TAPE T;DURACON M90-02 NTR	
320	69063-214-812	ASSY DRUM;DE-4UPH-SS	
326	63081-0011-00	RAIL-STOPPER L;ZDC12	
327	63082-0012-00	RAIL-STOPPER R;ZDC12	
329	66534-0006-00	CONTACT-EARTH BRUSH ASS'Y;SECC/PBSP/CR/C DE-4	
330	60509-0065-00	SCREW-MACHINE;BH UP M2 L7 SWRCH10A WHT WL	
331	67094-604-410	SCREW-BH;1+M2X5 FE FZY,WL	
405	63312-0005-00	COVER-REEL ASSY;SUS304-CSP T0.2+DURACON M90-02 BLK	
408	61603-0005-00	IDLER(ASSY);DE-4A	

8-6. MECHANICAL PARTS (2)


539
001
006
024
538
001
001
494
540
504
543
544
568
550
511
569
023
001
512
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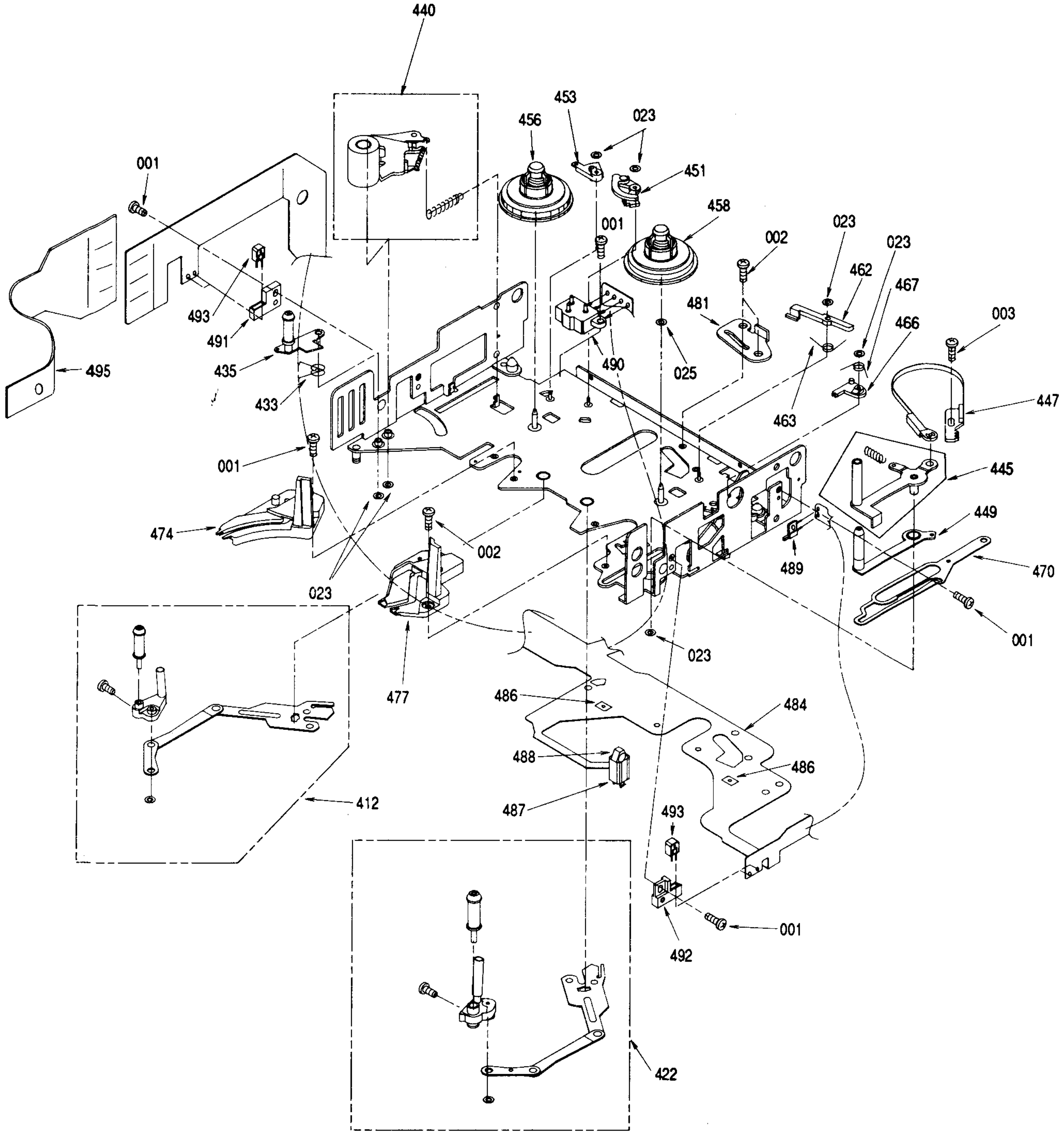
514
565
505
001
534
001
006
547
006
559
023
562
006
527
556
518
557
024
553
507
001

Loca. No	Part No	Description & Specification	Remark
001	60504-0005-00	SCREW-BH;BH + M1.4 L2 WHT	
006	60504-0016-00	SCREW;PH + FP M1.4 L3.5 S45C-HC BLK	
023	60534-0006-00	WASHER-SLIT;PI0.95 OD2.5 T0.25	
024	60534-0003-00	WASHER-SLIT;PI0.75 OD2.5 T0.2 POLYSLIDER	
494	63324-0246-00	HOLDER-FPC;PBT #3300	
504	61533-0058-00	LEVER-CAM ASS'Y;DE-4	
505	61534-0006-00	LEVER-EJECTOR;SUS304-CSP T0.3	
507	63013-0207-01	BRACKET-LOADING;SUS304-CP T0.3	
511	62202-0063-00	BASE-CAPSTAN ASS'Y;STS303/CS/STS304/WPB DE-4	
512	66823-0047-00	MOTOR-CAPSTAN;DE-4U	
514	63083-0014-00	RAIL-MIDDLE R;DURACON M90-02 NAT	
518	66823-0055-02	MOTOR-LOADING(ASSY);DE-4U	
527	63033-0028-00	POLE-BASE SUB IMP(ASSY);SUS+ZDC-2 NAT DE-4	
534	63354-0029-00	GUIDE-MODE SW;SUS304-CSP T0.3	
538	61473-0012-00	GEAR-PULLEY ASSY;DE-3	
539	61493-0006-00	BELT-TIMMING;L137 T0.4 POLYURETHAN	
540	61473-0010-00	GEAR-CAPSTAN ASSY;PA-SBK 1218	
543	61533-0051-00	LEVER-CAM P ASS'Y;DE-4	
544	61473-0009-01	GEAR-CAM PINCH;SUS304-CSP T0.8	
547	63083-0013-00	RAIL-MIDDLE L;DURACON M90-02 NAT	
550	63313-0030-00	COVER-TIME BELT;DURACON M90-02 NAT	
553	61534-0056-00	LEVER-CAM TENS ASS'Y;DE-4	
556	61474-0004-00	GEAR-LOADING B;BERIC	
557	61474-0078-00	GEAR-LOADING A;DURACON M90-02	
559	61473-0005-00	GEAR-CAM TENSION;BERIC	
562	66203-0021-00	SWITCH-MODE(ASSY);HMW0474-010010 DE-4U	
565	69063-214-244	ASSY-GEAR CAM MAIN;DE-4A	
568	61524-0003-00	ROLLER-CAM MAIN;SUS303	
569	60102-0023-00	PLATE-SLIDER ASS'Y;DE-4	

8-7. MECHANICAL PARTS (3)



Loca. No	Part No	Description & Specification	Remark
001	60504-0005-00	SCREW-BH;BH + M1.4 L2 WHT	
002	60504-0015-00	SCREW;BH + FP M1.4 L1.2 S45C-HC BLK	
003	60504-0017-00	SCREW;BH + FP M1.4 L2.2 S45C-HC BLK	
023	60534-0006-00	WASHER-SLIT;PI0.95 OD2.5 T0.25	
025	60534-0023-00	WASHER-SLIT;ID2.6 OD5 T0.25 POLYSLIDER BLK	
412	61543-0066-00	ARM-POLE BASE T(ASSY);SUS+ZDC-2 T2.0 DE-4	
422	61543-0067-00	ARM-POLE BASE S(ASSY);SUS+ZDC-2 T2.6 DE-4	
433	62724-0099-00	SPRING-(T) REVIEW ARM;TS SUS304WPB PI0.26 D2.93	
435	61543-0059-00	ARM-REVIEW ASS'Y;STS303/STS304/CSP	
440	61543-0063-00	ARM-PINCH R ASS'Y(ASSY⊠);DE-4A	
445	61543-0061-00	ARM-TENSION;STS303/STS304 T0.5 L43	
447	63324-0057-00	HOLDER-TEN BAND ASS'Y;DE-4	
449	61534-0068-00	LEVER-GUIDE ASS'Y;STS303/POM	
451	61543-0012-00	ARM-CLUTCH ASSY;DURACON M90-02	
453	61534-0059-00	LEVER-BRAKE T ASS'Y;DE-4	
456	61573-0020-00	REEL-T(ASSY);DE-4A	
458	61573-0019-00	REEL-S ASSY;DE-4A	
462	62614-0006-00	BRAKE-LEVER S;DURACON M90-02 NAT DE-4	
463	62724-0088-00	SPRING-LEVER BRAKE S;SUS304 WPB	
466	61543-0049-00	ARM-BRAKE S;DURACON M90-02 NAT	
467	62724-0087-00	SPRING-ARM BRAKE S;SUS304 WPB	
470	61643-0018-00	SLIDER-L.G;SUS304-CSP 0.4T	
474	63082-0010-00	RAIL-GUIDE T;DURACON M90-02(NAT)	
477	63081-0009-00	RAIL-GUIDE S;DURACON M90-02 NAT	
481	63334-0003-00	CLAMP-LOCKER SUB CHASSIS;SUS304-CSP T0.6	
484	69063-214-314	ASSY FPC SUB CHASSIS;DE-4U	
486	62599-099-033	SENSOR-REEL;TLP 907Y	
487	63324-0014-00	HOLDER-CASSETTE LED;DURACON M90-02(BLK)	
488	62309-112-045	LED-IR;GL453	
489	66209-0019-00	SWITCH-HOUSING;LSA-1112J2PT 15V 2MA	
490	66204-0018-00	SWITCH-DETECTOR;SPPW63	
491	63323-0016-00	HOLDER-END SENSOR;DURACON M90-02(BLK)	
492	63323-0015-00	HOLDER-START SENSOR;DURACON M90-02(BLK)	
493	66214-0014-00	SENSOR-TOP/END;PT4800F	
495	66044-0089-00	FPC-CONNECTION;FPC T0.2 DE-4U	

9. ADJUSTMENT

9-1. MECHANICAL ADJUSTMENT

9-1-1. Playback Tension Adjustment (See Fig. 1)

1. Remove Cover Housing Ass'y, Case Front Ass'y, Case-Right Ass'y. (See section 3-1-1, 3-1-2, 3-1-3 on the page 3-1,3-3)
2. Supply DC 7.5V to Battery Terminal.

1) Set the Torque Cassette.
2) Set the Play mode, and confirm that Reel Disk S torque value is within 4.5 ± 1 g/cm.
3) If the torque value does not meet the specification, adjust the Tension Band.

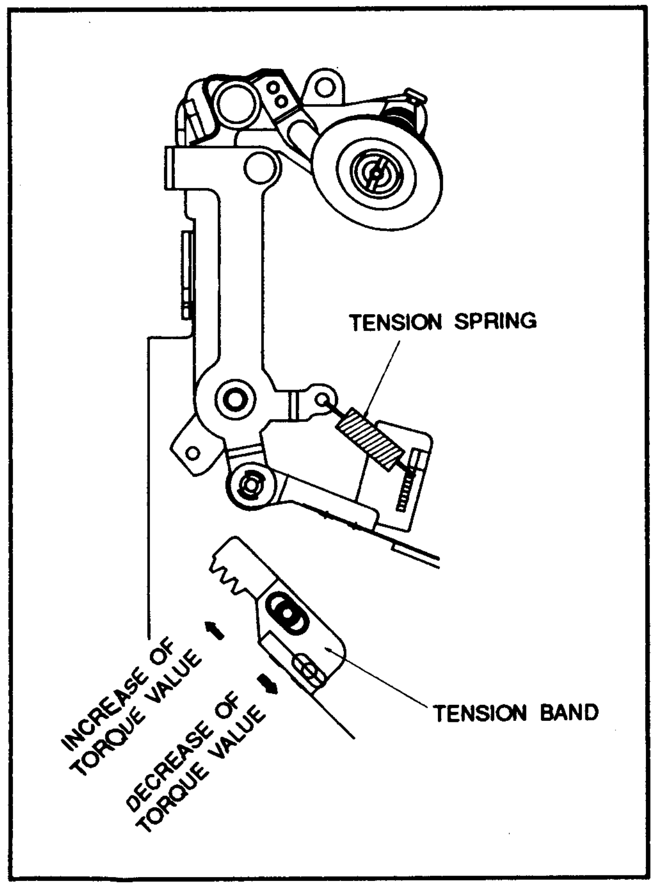

TENSION SPRING
TENSION BAND
INCREASE OF TORQUE VALUE
DECREASE OF TORQUE VALUE

Fig. 1 Playback Tension Adjustment

9-1-2. Reel Torque Check

1) Set the Torque Cassette.
2) Set the Play mode, and confirm that Reel Disk T torque value 10.5 ± 3.5 g/cm.
3) Set the RPS mode and confirm that Reel Disk S torque value is within 35 ± 5 g/cm.
4) If the torque value does not meet the specifications, replace the corresponding Reel Disk.

9-1-3. Tape Path Adjustment

1. Layout of Tape Transport Adjustment

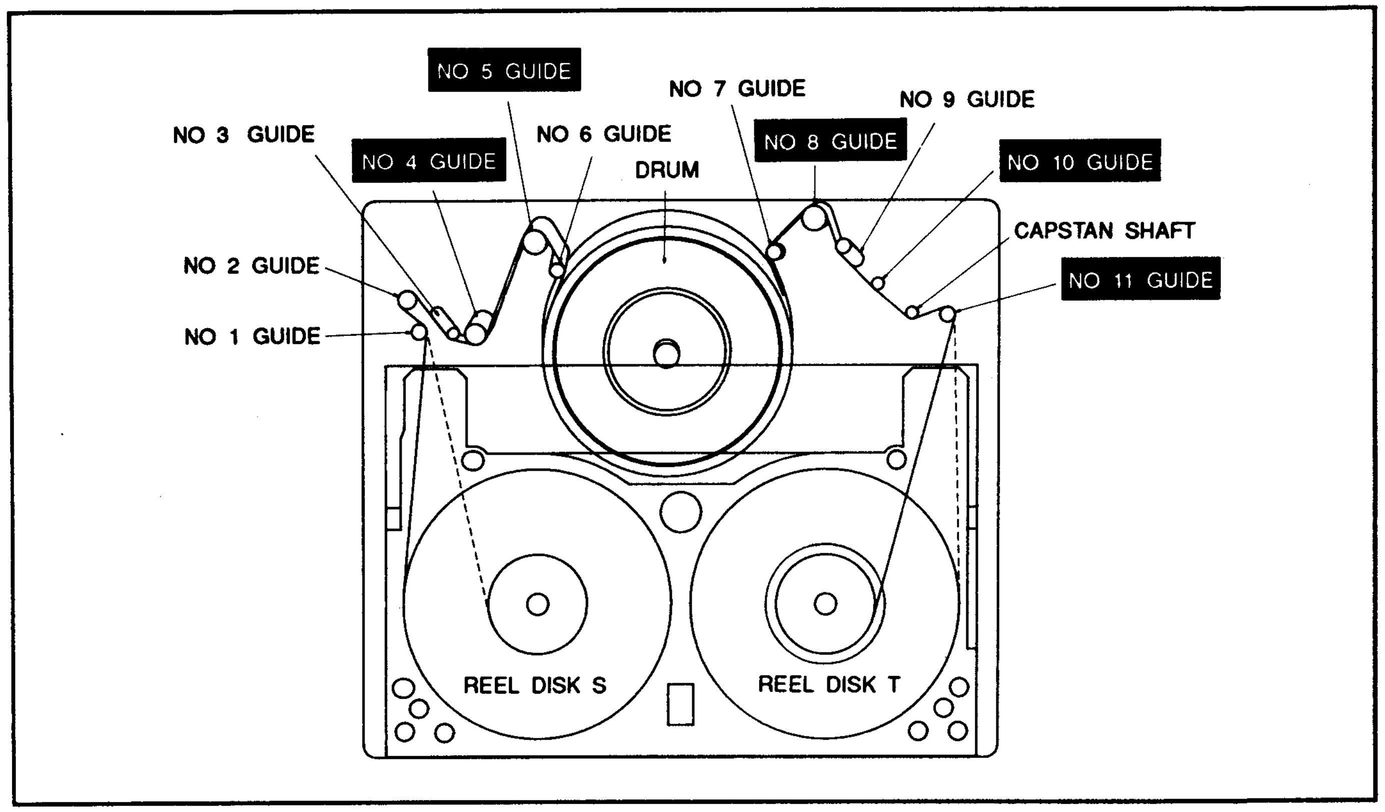

NO 5 GUIDE
NO 7 GUIDE
NO 9 GUIDE
NO 3 GUIDE
NO 4 GUIDE
NO 6 GUIDE
NO 8 GUIDE
NO 10 GUIDE
DRUM
CAPSTAN SHAFT
NO 2 GUIDE
NO 11 GUIDE
NO 1 GUIDE
REEL DISK S
REEL DISK T

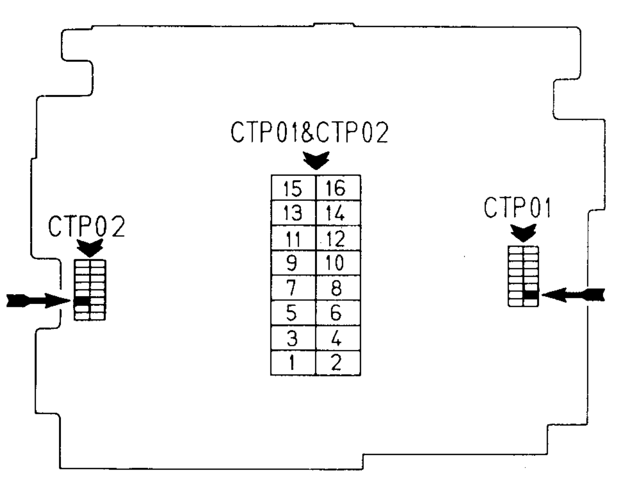
Fig. 2 Layout of Tape Transport Adjustment

Guide NO.	Component Name	Adjustment Purpose
NO. 1	Tension Pole	—
NO. 2	Roller Lever/G	—
NO. 3	Slant Pole SUB	—
NO. 4	Impedance Roller	Tape Height
NO. 5	Guide Roller "S"	Envelope
NO. 6	Pole Slant "S"	—
NO. 7	Pole Slant "T"	—
NO. 8	Guide Roller "T"	Envelope
NO. 9	Pole Slant CAP	—
NO. 10	Shaft Pole Guide	Tape Guide
NO. 11	Post Review Arm	Tape Wrinkle

2. Preparation for Adjustment

1) Clean tape path surfaces. (Guide Roller, Tape Guides, Drum) (See Fig. 2)
2) Connection of oscilloscope and output of waveform.

Test Point : Pin 5 of CTP02 (PB RF)
Pin 4 of CTP01 (H'D SW - Trigger)



(VCR Main PCB - Component Side)

3. Tracking Adjustment

1) Playback the alignment tape for tracking adjustment.
2) Confirm that both the entrance and exit side RF waveforms of oscilloscope are flat. (See Fig. 3)
If they are not, adjust as follows. (Tracking fine adjustment)

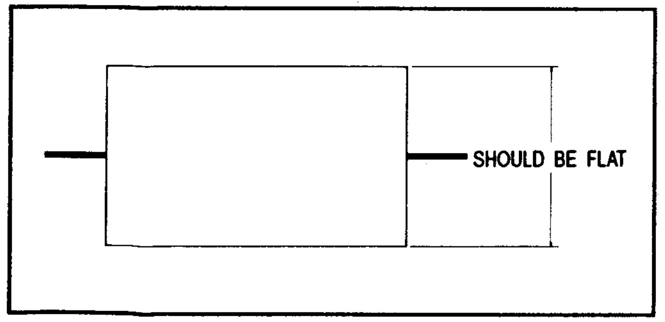


Fig. 3

4. Tracking fine Adjustment (See Fig. 4)

[1] Playback the alignment tape for tracking adjustment.

<Adjustment of Drum entrance side>
1) Confirm whether the waveform is flat or not.
2) If it shows like A : Adjust No. 5 Guide (Guide Roller S) clockwise to get the flat envelope waveform.
3) If it shows like B : Adjust No. 5 Guide counterclockwise to get the flat envelope waveform.

<Adjustment of Drum exit side>
1) Confirm whether the waveform is flat or not.
2) If it shows like C : Adjust No. 8 Guide (Guide Roller T) colckwise to get the flat envelope waveform.
3) If it shows like D : Adjust No. 8 Guide counterclockwise to get the flat envelope waveform.

[2]Reconfirm the envelope waveform.

1) After following step [1] reconfirm that envelope waveform has not changed.
2) If it's changed, please repeat step [1].

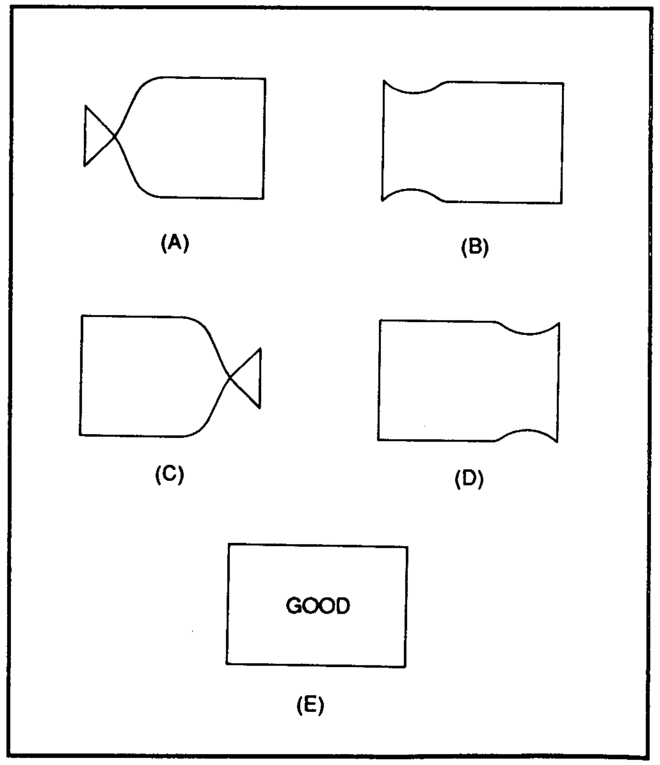


Fig. 4

5. Tape Guide Adjustment

[1] No. 4 Guide Adjustment (See Fig. 5 and 6)

1) Playback the alignment tape.
2) Check that the tape is not bent at the Lower Flange.
3) Guide the tape to the Lower Flange.
4) CUE/RPS the tape, then Play it Back and confirm that the RF waveform rises flat within 2.5 seconds. (See Fig. 5)
5) If the waveform is not normal, repeat step 3) and 4) until a normal waveform is obtained.

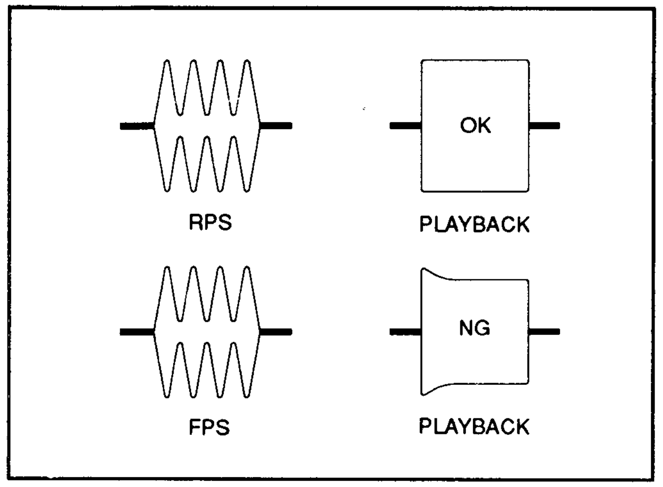


Fig. 5

[2] No. 10 Guide Adjustment (See Fig. 6)

1) Playback the alignment tape and guide the tape to the Lower Flange.
2) CUE/RPS the tape, then Play it Back and confirm that the tape is not bent at the Flange, instead of check that RF waveform rises flat within 2.5 seconds in the PLAYBACK mode.
3) If the waveform is not normal, repeat steps 1) and 2) until a normal waveform is obtained.
4) If the tape is bent in the RPS mode, Adjust No. 11 Guide until the tape is straightened.

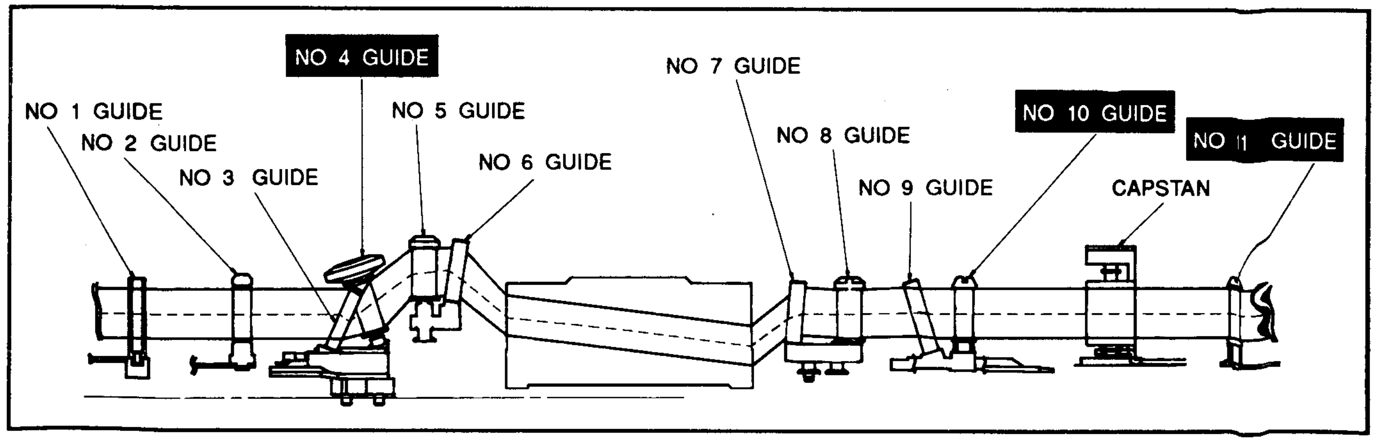


Fig. 6 Tape Travel Diagram

[3] No. 11 Guide Adjustment (See Fig. 6)

1) Playback the alignment tape.
2) Check that the tape is not bent between No. 10 Guide and Capstan.
3) Set the Play mode again and confirm that the tape is not bent. If the tape is bent, repeat steps 1) and 2).

[4] CUE and RPS Waveform Check (See Fig. 7)

1) Playback the alignment tape for tracking adjustment and set the RPS mode. Confirm that waveform peaks maintain a constant pitch for 5 seconds or more.
In case pitch is not constant, perform section 4 (See page 5-3) tracking fine adjustment and section 5 tape guide adjustment. (No. 11 Guide)
2) Set the CUE mode and confirm that waveform peaks maintain a constant pitch for 5 seconds or more, otherwise, perform section 4 (See page 5-3) and section 5. (No. 4 Guide)

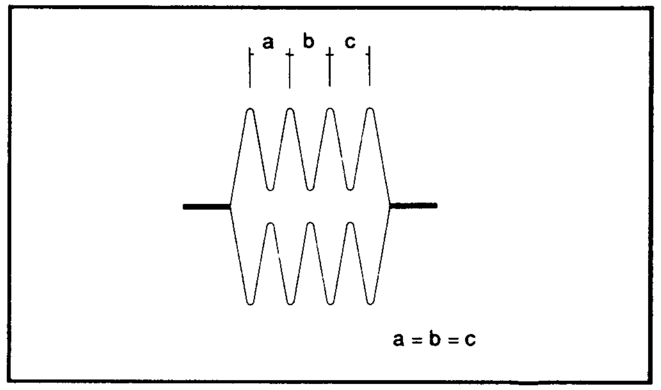


Fig. 7

9-1-4. Check After Adjustment

1. Tape Path Check (See Fig. 6)

1) Playback a tape and confirm that no tape rising and curling occur at the Lower Flange of No. 4 Guide, the Upper Flange of No. 8 Guide, the Lower Flange of No. 10 Guide and the No. 11 Guide Upper and Lower Flanges.
2) In the FPS, RPS, FF, REW mode, check step 1 again.
3) If no tape rising and curling occur, repeat section 4 (See page 5-3) and 5 (See page 5-4) once more.

2. Envelope Stability Check

1) Playback the alignment tape.
2) Eject the tape, then load it again.
3) Confirm the envelope waveform.

*** STOP → PLAY ;**

Set the Play Back mode and confirm that RF waveform rises flat within 2.5 seconds, also confirm that the tape is not bent around the Pinch Roller.

*** FPS/RPS → PB, FF/REW → PB ;**

CUE/RPS and FF/REW the tape, then Play it Back and confirm that the RF waveform rises flat within 2.5 seconds also confirm that the tape is not bent around the Pinch Roller.

3. Tracking Check

1) Playback the alignment tape.
2) Then confirm that the minimum amplitude value (Emin) is 65% of the maximum value (Emax) or larger. (See Fig. 8 (A))
3) Confirm that no large fluctuations occur on the waveform. (See Fig. 8 (B))

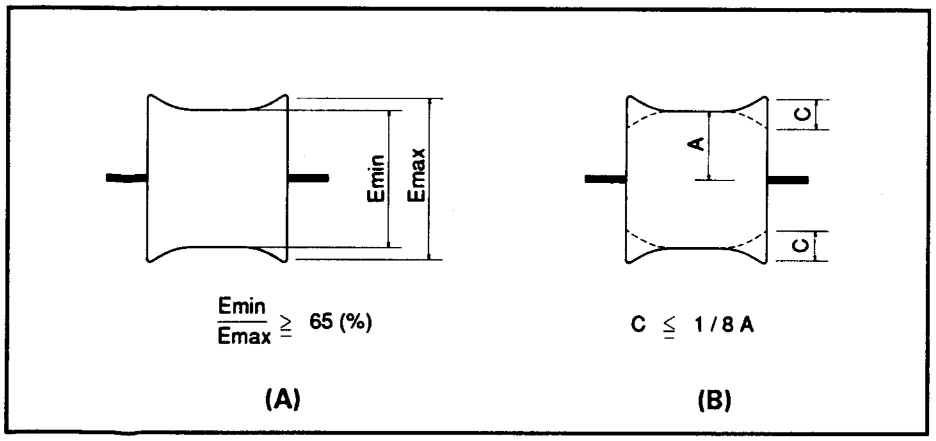


Fig. 8

4. Self-Recording Envelope-Waveform Check

1) After self-recording in the SP mode playback the tape and confirm that the RF waveform meets the specification. (See Fig. 9)
   Also, check that the level of the amplitude value meets specification. (See Electronic specification)
2) In each mode, confirm that the difference of the amplitude (CH1 and CH2) is 65% or larger. (See Fig. 9)
   If it does not meet specification, change Drum Ass'y to a new Drum Ass'y.

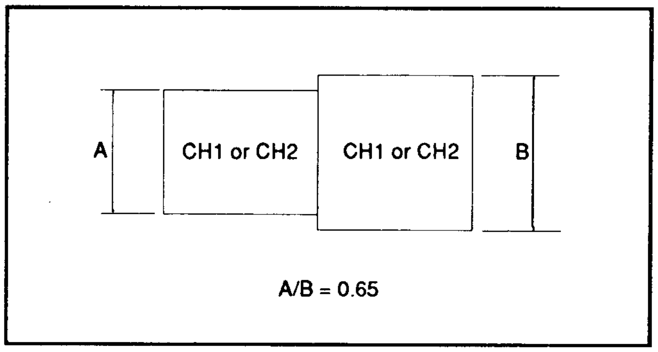


Fig. 9

9-2. CAMERA SECTION ADJUSTMENT

NOTE

This CAMERA System has
- **EVR (Electronic Variable Resistor) control method by D/A converter instead of VR control method.**
- **EEPROM to store the confirmed adjustment data.**
- **DSP (Digital Signal Process ; ICP01 - Camera Main PCB) chip to process the signal of Camera parts.**
- **One Test point for the frequency adjustment of DSP main clock (P. CLK).**
- **The special mode for Camera adjustment using remote control card.**

Keep in mind ;
1. Readjustment is needed when the lens assembly is removed from CCD board. The reason is that shifting of zoom track or iris level occurs when the CCD board and lens assembly are reassembled after servicing.
2. Readjustment is needed when the EEPROM (ICA02 of Camera Main PCB) and zoom lens assembly are replaced. The reason is that EEPROM stores confirmed adjustment value of each adjustment step.
3. All adjustment steps of the camera section should be performed using the remote control card.

9-2-1. Preparations

1. Equipment to be used

1) DC Power supply
2) Oscilloscope
3) Frequency Counter
4) Vectorscope
5) Waveform monitor
6) Color monitor or TV
7) Various charts
   - Color bar chart
   - Gray-scale chart, etc ...
8) Alignment tape (Lion pattern)
9) Remote Control card

2. Composition of Camera P.C.Boards

1) Camera Main PCB
2) AUTO PCB
3) CVF PCB

3. Adjustment Preparations

- Remote Control Card is used as a Camera Adjust Tool.
- Press the confirm button when each manual adjustment step is completed to write the adjustment data to the EEPROM.
- After each adjustment step is completed, OSD shows "OK".
- To cancel the adjustment mode, remove the power source.
- Press and hold the "MODE UP" or "MODE DOWN" button, mode will skip 4 steps.

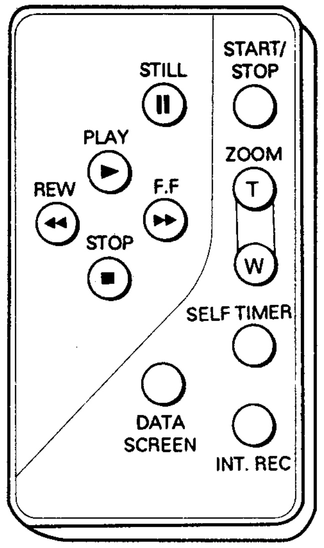
4. Remote Control

*The following is a chart explaining the use of each button :

USING BUTTON	ADJUSTMENT
CONFIRM	DATA stored after finishing adjustment by mode or enable to automatic adjustment mode.
DATA UP	When changing DATA value of adjust state.
DATA DOWN	
MODE UP	Mode change.
MODE DOWN	
NEAR	Focus adjustment.
FAR	
WIDE	Used for manual focus adjustment.
TELE	

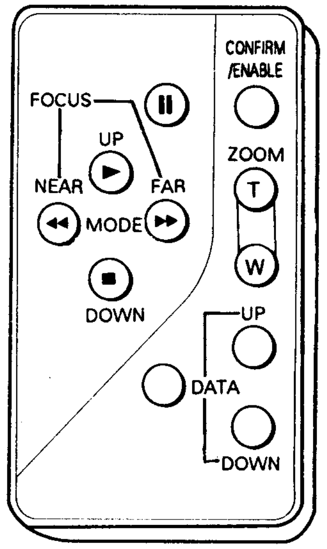
This remote is used to control the camcorder. It is also used to adjust the camera section when the unit is in service "ADJUST" mode.

Remote for Camcorder



REASSIGNMENT
IN THE
ADJUSTMENT MODE

Figure of Button Placement when remote is used for Service Adjustments.

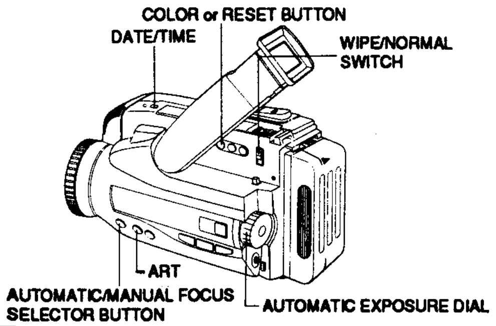


Note: In Service Adjustment mode, button names are different from those in customer camera function control mode.
EX) start/stop button is the same as Confirm/Enable.

5. How to get into service "ADJUST" mode.

STEP 1

1. Remove the lithium battery from the camcorder.
2. Connector the power source (battery/DC cable).
3. Eject the tape if it is in the unit.
4. Set the power switch of the camcorder to "CAM" position.
5. Set OSD on state.



STEP 2

1. Press the "A/M Focus" button on the left case, OSD shows "M. Focus"
2. Press the "ART" button three times on the left case OSD shows " ⊘3 ".
3. Turn the "Auto Exposuere" S/W to SUNNY(the end of left side) OSD shows "SUNNY"
4. Press and hold thd "TIME/DATE" button on the upper case more than 5 seconds, and then press the button 3 times. OSD blink at the time position.
5. Lift up color view finder, set "WIPE/NORMAL" S/W to normal position. Press and hold the "RESET" button more than 5 seconds.

STEP 3

"ADJUST" will now be blinking at center of screen. Now press "START/STOP" button of remote control card.

On screen display shows "59 ASET XX XX" CAMERA ADJUSTMENT mode has successfully been activated.

6. Initial data of camera parts adjustment

During camera adjustment, the OSD displays the following abbreviations to indicate the selected mode.

Example) " 00 XXXX XX XX "

Note : "DATA 1" is previous setting in momory, "DATA 2" is now adjustment setting, that changes during adjustment mode. After pressing "START/STOP(CONFIRM)", it goes to memory.

Mode	O S D	Name of adjustment	Data 1	Data 2
59	ASET	AUTO SET-UP	00	00
54	A-HL	AUTO HALL	00	00
52	A-IR	AUTO IRIS	00	00
53	AGC	AUTO AGC	00	00
55	AWB	AUTO WHITE BALANCE	00	00
00	Y-R	Y GAMMA	90	90
01	VSUB	VOLTAGE SUB	66	66
02	IRIS	IRIS CONTROL	7A	7A
05	VRG	VOLTAGE RESET-GATE	62	62
06	M-HL	HALL REF	26	26
08	LENS	ZOOM TRACK ADJ.	85	85
12	COV2	AUTO KNEE COEF 2	68	68
13	CAP	APERTURE GAIN CONTROL	F0	F0
14	CCOA	COLOR SEPARATION COEF 1	21	21
15	CC0B	COLOR SEPARATION COEF 2	33	33
16	CAKP	AUTO KNEE POINT	D0	D0
17	CNSL	NOISE SLICE LEVEL	02	02
18	CAPS	EDGE CHROMA GAIN	00	00
19	CRCO	CCR GAIN	40	40
1A	CBCO	CCB GAIN	40	40
1B	CGCO	YL GAIN	80	80
1E	MRPW	R PRE-WHITE BALANCE	40	40
1F	MGPW	G PRE-WHITE BALANCE	20	20
20	MBPW	B PRE-WHITE BALANCE	40	40
21	MRWB	R WHITE BALANCE	3C	3C
22	MBWB	B WHITE BALANCE	47	47
23	MDSR	DARK SLICE R	02	02
24	MDSB	DARK SLICE B	00	00
25	MDSG	DARK SLICE G	FD	FD
26	MRHC	R-Y HUE	19	19
27	MBHC	B-Y HUE	19	19
28	MRYG	R-Y GAIN	34	34
29	MBYG	B-Y GAIN	24	24
45	EHBB	B-Y BURST CARRIER GAIN	CE	CE
46	EHBR	R-Y BURST CARRIER GAIN	00	00
47	ECFA	CHROMA FADE CONTROL	40	40
48	EWCL	WHITE CLIP LEVEL	F0	F0
49	EYFA	Y FADE CONTROL	80	80
4A	ESET	Y SET-UP LEVEL	00	00
66	AETR	AUTO IRIS TARGET	54	54
68	AGMI	AGC MINIMUM	50	50
69	AGMA	AGC MAXIMUM	B9	B9
6A	AEBL	AE BLC	45	45

Mode	Name of adjustment	Data 1	Data 2
00	Y GAMMA GAIN	90	90
01	VOLTAGE SUB	66	66
02	IRIS CONTROL	7A	7A
03	AGC CONTROL 1	40	40
04	AGC CONTROL 2	00	00
05	VOLTAGE RESET GATE	62	62
06	HALL REF	26	26
07	C GAMMA	00	00
08	ZOOM TRACK ADJ.	85	85
09	AUTO VSUB	65	NO USE
0A	AUTO RESET GATE	62	NO USE
0B	DSP STATUS REG.	00	00
0C	RAM ADRESS REG.	00	00
0D	RAM DATA LOW BYTE	00	00
0E	RAM DATA HIGH BYTE	00	00
0F	DM COMMAND REG.	04	04
10	DIS CONNAMD	02	02
11	AUTO KNEE COEF 1	00	00
12	AUTO KNEE COEF 2	68	68
13	APERTURE GAIN CONTROL	F0	F0
14	COLOR SEPARATION COEF 1	21	21
15	COLOR SEPARATION COEF 2	33	33
16	AUTO KNEE POINT	D0	D0
17	NOISE SLICE LEVEL	02	02
18	EDGE CHROMA GAIN	00	00
19	CCR GAIN	40	40
1A	CCB GAIN	40	40
1B	YL GAIN	80	80
1C	S/I LOW THRESHOLD	0B	0B
1D	S/I HIGH THRESHOLD	0B	0B
1E	R PRE-WHITE BALANCE	40	40
1F	G PRE-WHITE BALANCE	20	20
20	B PRE-WHITE BALANCE	40	40
21	R WHITE BALANCE	3C	3C
22	B WHITE BALANCE	47	47
23	DARK SLICE R	02	02
24	DARK SLICE B	00	00
25	DARK SLICE G	FD	FD
26	R-Y HUE	19	19
27	B-Y HUE	19	19
28	R-Y GAIN	34	34
29	B-Y GAIN	24	24
2A	MATRIX COEF A1	B3	B3

Mode	Name of adjustment	Data 1	Data 2
2B	MATRIX COEF B1	4B	4B
2C	MATRIX COEF A2	1C	1C
2D	MATRIX COEF B2	E4	E4
2E	S/I COMMAND REG.	01	01
2F	COLOR STATUS REG.	00	00
30	-	00	00
31	-	00	00
32	Y SET-UP START DATA	50	50
33	Y.S OFF-SET 1(AGC=OFF)	90	90
34	Y.S OFF-SET 2(AGC=80)	88	88
35	Y.S OFF-SET 3(AGC=MAX)	88	88
36	Y.S CONTROL 1(AGC=OFF)	6A	6A
37	Y.S CONTROL 2(AGC=80)	54	54
38	Y.S CONTROL 3(AGC=MAX)	85	85
39	AWB HALL REF.	80	80
3A	AF2 DATA DEC.	20	20
3B	AF UNSTABLE REF.	0A	0A
3C	R-Y GAIN CONTROL 2	33	33
3D	AWB AEAVR DEC.	03	03
3E	R.B CONTROL BOUNDARY	55	55
3F	AWB STOP OFF-SET	10	10
40	OUT DOOR HALL	56	56
41	HORIZENTAL PRESET	08	08
42	VERTICAL PRESET	08	08
43	HORIZENTAL POSITION	1A	1A
44	VERTICAL POSITION	1F	1F
45	B-Y BURST CARRIER GAIN	D3	D3
46	R-Y BURST CARRIER GAIN	27	27
47	CHROMA FADE CONTROL	40	40
48	WHITE CLIP LEVEL	F0	F0
49	Y FADE CONTROL	80	80
4A	Y SET-UP LEVEL 1	00	00
4B	Y SER-UP LEVEL 2	02	02
4C	ENCORDER COMMAND 1	A0	A0
4D	ENCORDER COMMAND 2	04	04
4E	T.G COMMAND 1	00	00
4F	T.G COMMAND 2	00	00
50	LOW LIGHT CNSP	08	08
51	LOW LIGHT CNSL	72	72
52	AUTO IRIS	00	00
53	AUTO AGC	00	00
54	AUTO HALL	00	00
55	AUTO WHITE BALANCE	00	00

Note : On table you see the "XX XX" for DATA 1/DATA 2 "XX XX" means arbitary value.

Mode	Name of adjustment	Data 1	Data 2
56	OUTDOOR R-Y COEF	0B	0B
57	HALL OF IRIS CLOSED	0C	0C
58	CNSL OF D-ZOOM	20	20
59	AUTO SET-UP	00	00
5A	-	CC	CC
5B	OUTDOOR B-Y GAIN	15	15
5C	OUTDOOR R-Y GAIN	29	29
5D	OUTDOOR B HUE	15	15
5E	AWB R BLACK POINT	86	86
5F	AWB B BLACK POINT	78	78
60	-	00	00
61	FOCUS RESET L	00	00
62	FOCUS RESET H	06	06
63	ZOOM RESET L	A4	A4
64	ZOOM RESET H	07	07
65	ZOOM TRACK DATA	B7	B7
66	AUTO IRIS TARGET	54	NO USE
67	AGC START HALL	A4	A4
68	AGC MINIMUM	50	50
69	AGC MAXIMUM	B9	B9
6A	AE BALANCE	45	45
6B	R INDOOR	3E	3E
6C	B INDOOR	7B	7B
6D	R OUTDOOR	6C	6C
6E	B OUTDOOR	4A	4A
6F	AGC ON CS	56	56
70	PEAK RATIO	20	20
71	HALL ADJ. START	40	40
72	IRIS ADJ. START	70	70
73	AGC RELATED CNS	10	10
74	AGC MINIMUM ADJ. START	28	28
75	AGC MAXIMUM ADJ. START	B8	B8
76	WB INDOOR R START	40	40
77	WB INDOOR B START	80	80
78	WB OUTDOOR R START	58	58
79	WB OUTDOOR B START	58	58
7A	HALL GAIN	82	82
7B	AE TARGET OF AGC MAXIMUM	30	30

< Example of the TV screen >

59	ASET	XX Data in memory	XX Data to be adjusted

9-2-2. Camera System Adjustment

NOTE

From now on, the structure of every adjustment is as

STEP	ADJUSTMENT
1. MODE and INPUT SIGNAL/ALIGNMENT TAPE 2. TEST POINT and ADJ. part 3. RESULT & REMARKS	

ADJ. part →

Test Point - - →

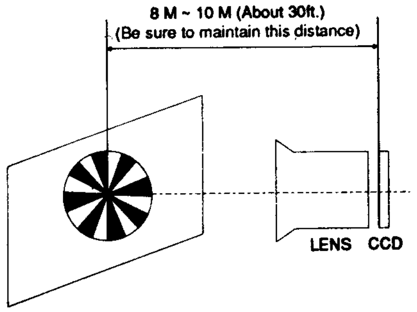
Note: The On-Screen Display Information.
"XX XX" means arbitary value.
It can be different number depend on the conditions.

```
01   VSUB        XX   XX
```

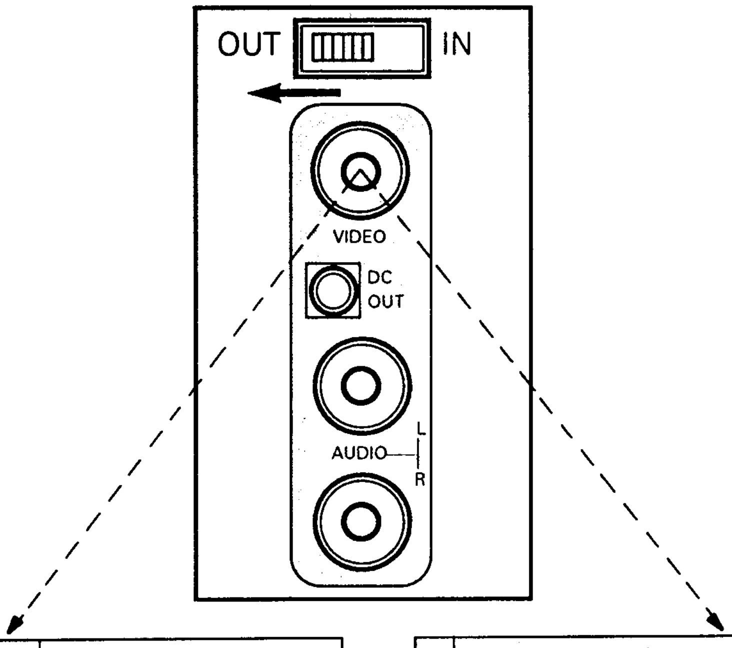
1 FOCUS TO ZOOM TRACKING

Note : To maintain proper focus throughout the zoom range, the focus lens position must be changed as the zoom lens is moved. During this adjustment the microprocessor will measure the focus positioning requirements at the wide and telephoto position of the zoom lens.

1. CAMERA "E-E".
2. Focus Chart (Attached on the last page of this manual) & EVR.
3. 1) Aim the camera at the focus chart placed about 30ft. (8 to 10 meters) away and perpendicular to the center of the lens.
   The chart should be placed on the flat, gray or white wall.
   2) Connect monitor TV jack to video output jack.
   3) Press the "PLAY (MODE UP)" and "STOP (MODE DOWN)" buttons, so that the OSD state is "08 LENS XX XX".
   4) Focus Adjustment (There are two (2) ways to do the adjustment.)
      a. Full Auto : Press "START/STOP(CONFIRM)" button for full auto adjustment.
      The camera will move both zoom and focus lens. The adjustment is finished when the O.K message appears on the TV screen.
      b. Manual : Camera lens will be moved to all positions to set maximum focus setting.
      b-1. Manual adjustment by pressing the "TELE" button.
      The zoom lens should move to the middle angle position.
      b-2. Press the "WIDE" button to instruct the microprocessor to adjust the focus lens for optimum focus.
      b-3. Press the "START/STOP (CONFIRM)" button.
      The zoom lens should move to the tele zoom position.
      b-4. After the zoom lens reaches the Tele zoom position, repeat step **b-2**.
      b-5. Press the "START/STOP (CONFIRM)" button.
      The zoom lens should move to the middle zoom position.
      b-6. After the zoom lens reaches the middle zoom position, if focus state is not the optimum focus state, repeat step **b-2**, **b-3**, **b-4** and **b-5**.
      b-7. Press "START/STOP (CONFIRM)" button.
      The zoom lens should move to the wide zoom position, try to step **b-2**.
      b-8. Press "START/STOP (CONFIRM)" button to instruct the micro processor to write the focus lens position data to the EEPROM.
      The lens will move through the zoom range and the picture will fade out and then back in. The OSD will display "OK".



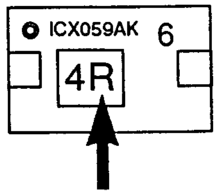
A/V JACK



2 V SUB

1. CAMERA "E-E", no signal input.
2. Video output jack & EVR.
3. * Connect monitor TV to video output jack.
   * Press the "PLAY (MODE UP)/STOP (MODE DOWN)" button so that the OSD state is "01 VSUB XX XX".
   * V SUB specified voltage is indicated by one digit. (Rear of the CCD image sensor)
   * Adjust the "SELF TIMER (DATA UP)/INT.REC (DATA DOWN)" button so that the data is the specified HEX value.
   * Be sure to press the "START/STOP (CONFIRM)" button to memorize setting.

EXAMPLE



★ ICX059AK : CCD Device name
★ 4 : RG code address
★ R : V SUB voltage code address
R = 14.5V ---> 8B

(Rear of the CCD image sensor)

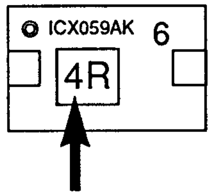
(Table for V SUB Voltage)

Digit	V SUB Voltage	HEX Value	Digit	V SUB Voltage	HEX Value	Digit	V SUB Voltage	HEX Value
E	9.0V	44	m	12.5V	62	U	16.0V	7F
f	9.5V	48	N	13.0V	66	V	16.5V	84
G	10.0V	4D	p	13.5V	6A	W	17.0V	88
h	10.5V	51	Q	14.0V	6E	X	17.5V	8D
J	11.0V	55	R	14.5V	73	Y	18.0V	91
k	11.5V	59	S	15.0V	77	Z	18.5V	96
L	12.0	5E	T	15.5	7B	-	-	-

3 RG (Reset Gate)

1. CAMERA "E-E", no signal input.
2. Video output jack & EVR.
3. * Connect monitor TV to video output jack.
   * Press the "PLAY (MODE UP)/STOP (MODE DOWN)" button so that the OSD state is "05 V RG XX XX".
   * RG code is indicated by one digit. (Rear of the CCD image sensor)
   * Adjust the "SELF TIMER (DATA UP)/INT.REC (DATA DOWN)" button so that the data is the specified HEX value.
   * Be sure to press the "START/STOP (CONFIRM)" button to memorize setting.

EXAMPLE



★ ICX059AK : CCD Device name
★ 4 : RG voltage code address
4 = 2.5V ---> 80

(Rear of the CCD image sensor)

(Table for RG Voltage)

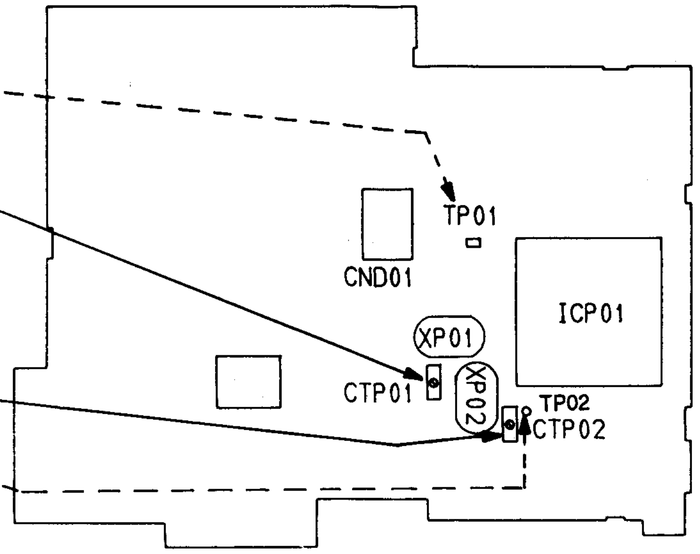
DIGIT	1	2	3	4	5	6	7
V RG VOLT	1.0	1.5	2.0	2.5	3.0	3.5	4.0
HEX Value	32	4D	67	80	9B	B7	D0

4 P. CLK ADJUSTMENT

1. "CAMERA", no signal input.
2. TP01 & CTP01.
3. * Connect a frequency counter to TP01.
   * Adjust CTP01 for **14.1875MHz ± 100Hz**.

5 PLL ADJUSTMENT

1. "CAMERA", no signal input.
2. TP02 & CTP02.
3. * Connect a frequency counter to TP02.
   * Adjust CTP02 for **D.C 2.5V ± 0.1V**.



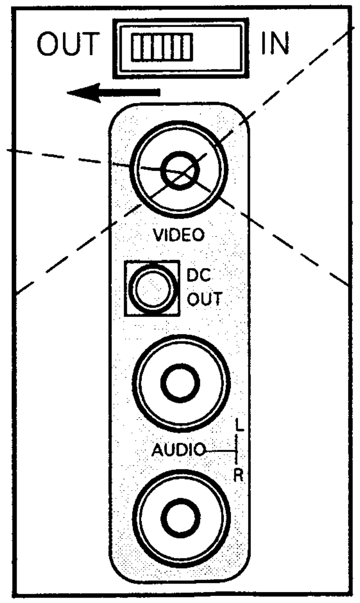
CAMERA MAIN PCB (CONDUCTOR SIDE)

6 AUTO SET-UP LEVEL

1. CAMERA "E-E", 3100° K gray-scale chart.
2. Video output jack & EVR.
3. * Connect video output jack to waveform monitor input jack and monitor TV jack respectively.
   * Press the "PLAY (MODE UP)/STOP (MODE DOWN)" button so that the OSD state is "59 ASET XX XX".
   * Press the "START/STOP (CONFIRM)" button, and then the microprocessor will work.
     - Closed the IRIS.
     - Set AGC to AGC 00, AGC 80 and AGC max,
     - and then find the data, set-up level is equal to 5IRS, each state.
     - Store the data to mode 36, mode37, mode 38.
   * The OSD shows "OK".

7 AUTO HALL

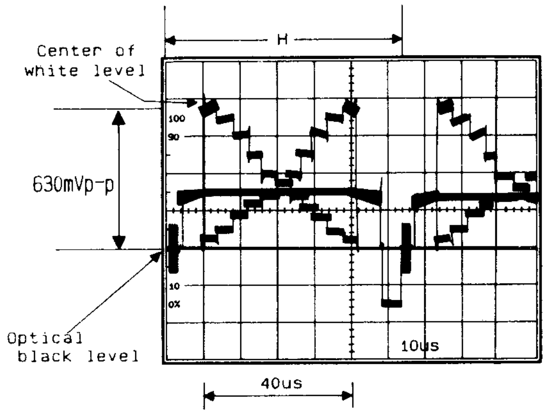
1. CAMERA "E-E", no signal input.
2. Video output jack & EVR.
3. * Connect monitor TV to video output jack.
   * Press the "PLAY (MODE UP)/STOP (MODE DOWN)" button so that the OSD state is "54 A-HL XX XX".
   * Press "START/STOP (CONFIRM)" button.
   * Then, the microprocessor will work.
     - IRIS closed, FINDS HALL minimum value,
     - IRIS open, FINDS HALL maximum value.
     - Store the data to mode 06.
   * The OSD shows "OK".



A/V JACK

8 AUTO IRIS LEVEL

1. CAMERA "E-E", 3100° K gray-scale chart.
2. Video output jack & EVR.
3. * Connect video output jack to waveform monitor input jack and monitor TV jack respectively.
   * Press the "PLAY (MODE UP)/STOP (MODE DOWN)" button so that the OSD state is "52 A-IR XX XX".
   * Aim the camera at a gray-scale chart evenly illuminated at 1500 to 2000 lux. (Must be 40µs)
   * Press the "START/STOP(CONFIRM)" button, then the microprocess will work;
     - Start IRIS control from the value of mode 72.
     - Find the data, Y level is equal to the AE TARGET of mode 66 **(630mVp-p ± 10mV).**
     - Store the data to mode 02.
   * The OSD shows "OK".



9 AUTO AGC CONTROL

1. CAMERA "E-E", 3100° K gray-scale chart.
2. Video output jack & EVR.
3. * Connect monitor TV to video output jack.
   * Press the "PLAY (MODE UP)/STOP (MODE DOWN)" button so that the OSD state is "53 AGC XX XX".
   * Aim the camera at a gray-scale chart evenly illuminated at 1500 to 2000 lux. (40µs)
   * Press "START/STOP(CONFIRM)" button.
   * Then, the microprocessor will work;
     - FIND AGC minimum point data and store to mode 69.
     - FIND AGC start point data, and store to mode 67.
   * The OSD shows "OK".

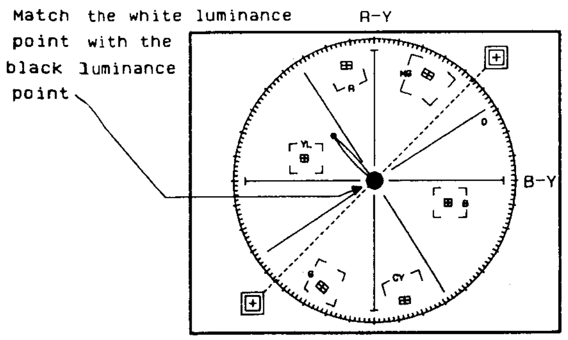
10 AUTO WHITE BALANCE

1. CAMERA "E-E", 3100° K/5100° K gray-scale chart.
2. Video output jack & EVR.
3. * Press the "PLAY (MODE UP)/STOP (MODE DOWN)" button so that the OSD state is "55 AWB XX XX".
   * Connect vectorscope input jack to video output jack.

1) W/B INDOOR
   - Aim the camera at a 3100° K gray-scale chart illuminated at 1500 to 2000 lux. (40µs)
   - Press "START/STOP (CONFIRM)" button so that the white vector moves to the center on screen of the vectorscope.

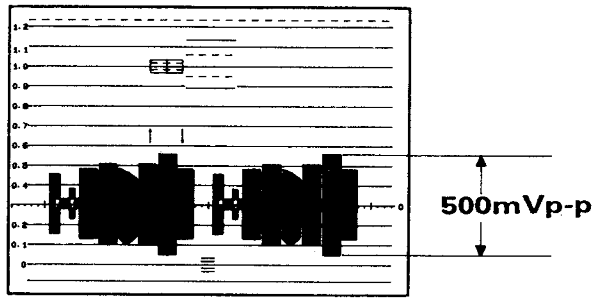
2) W/B OUTDOOR
   - Aim the camera at a 5100° K gray-scale chart illuminated at 1500 to 2000 lux. (40µs)
   - Press "START/STOP (CONFIRM)" button so that the white vector moves to the center on screen of the vectorscope.

* The OSD shows "OK".


Match the white luminance point with the black luminance point
R-Y
B-Y

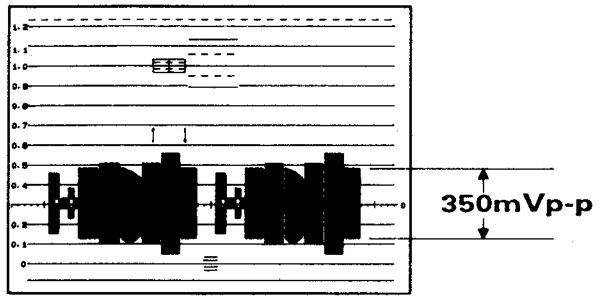
11 R-Y GAIN

1. CAMERA "E-E", 3100° K color bar chart.
2. Video output jack & Register of EEPROM.
3. * Connect video output jack to waveform monitor input jack and monitor TV jack respectively.
   * Press the "PLAY (MODE UP)/STOP (MODE DOWN)" button so that the OSD state is "28 MRYG XX XX".
   * Aim the camera at a color bar chart illuminated at 1500 to 2000 lux.
   * Adjust the "SELF TIMER (DATA UP)/INT.REC (DATA DOWN)" button so that the Red level is **500mVp-p ± 35mV.**
   * Be sure to press the "START/STOP (CONFIRM)" button to memorize setting.
   * The OSD shows "OK".



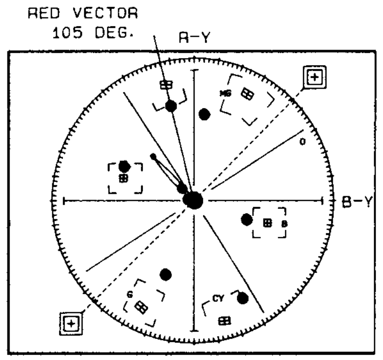
12 B-Y GAIN

1. CAMERA "E-E", 3100° K color bar chart.
2. Video output jack & Register of EEPROM.
3. * Connect video output jack to waveform monitor input jack and monitor TV jack respectively.
   * Press the "PLAY (MODE UP)/STOP (MODE DOWN)" button so that the OSD state is "29 MBYG XX XX".
   * Aim the camera at a color bar chart illuminated at 1500 to 2000 lux.
   * Adjust the "SELF TIMER (DATA UP)/INT.REC (DATA DOWN)" button so that the Blue level is **350mVp-p± 35mV.**
   * Be sure to press the "START/STOP (CONFIRM)" button to memorize setting.
   * The OSD shows "OK".



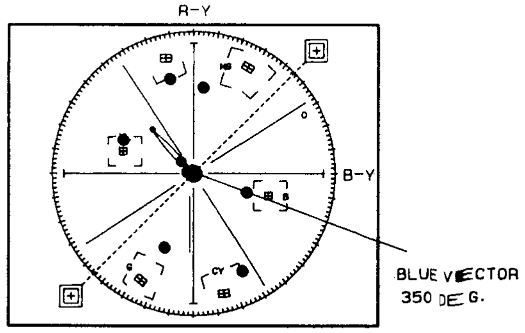
13 R-Y HUE

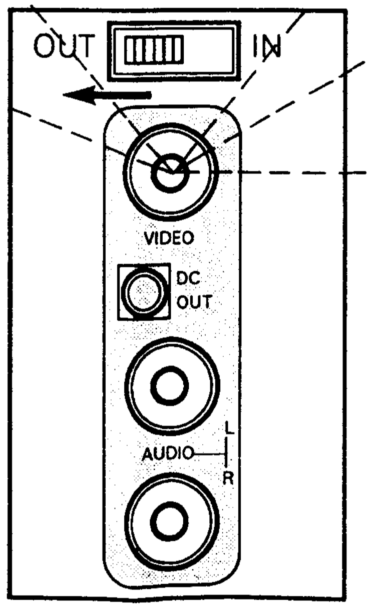
1. CAMERA "E-E", 3100° K color bar chart.
2. Video output jack & Register of EEPROM.
3. * Connect video output jack to vectorscope input jack and monitor TV jack respectively.
   * Press the "PLAY (MODE UP)/STOP (MODE DOWN)" button so that the OSD state is "26 MRHC XX XX".
   * Aim the camera at a color bar chart illuminated at 1500 to 2000 lux.
   * Adjust the "SELF TIMER (DATA UP)/INT.REC (DATA DOWN)" button so that the Red vector **105 ± 15 deg.**
   * Be sure to press the "START/STOP (CONFIRM)" button to memorize setting.
   * The OSD shows "OK".



14 B-Y HUE

1. CAMERA "E-E", 3100° K color bar chart.
2. Video output jack & Register of EEPROM.
3. * Connect video output jack to vectorscope input jack and monitor TV jack respectively.
   * Press the "PLAY (MODE UP)/STOP (MODE DOWN)" button so that the OSD state is "27 MBHC XX XX".
   * Aim the camera at a color bar chart illuminated at 1500 to 2000 lux.
   * Adjust the "SELF TIMER (DATA UP)/INT.REC (DATA DOWN)" button so that the blue vector **350 ± 10 deg.**
   * Be sure to press the "START/STOP (CONFIRM)" button to memorize setting.
   * The OSD shows "OK".





A/V JACK

9-2-3. CVF Adjustment

1 LCCOM VOLTAGE

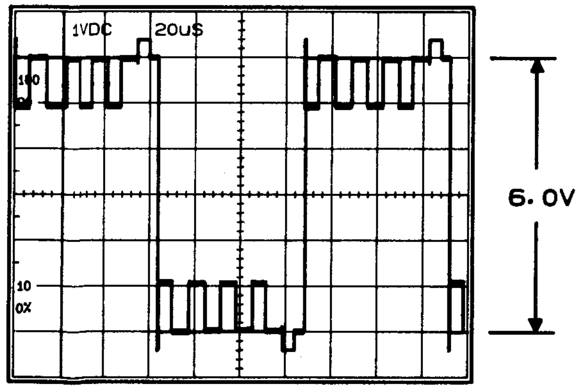
1. VCR "PB", Alignment tape (Color bar : SP).
2. TP-C & VRL06.
3. * Connect digital voltmeter probe to TP-C.
   * Adjust VRL06 so that the voltage is **DC 5.6V ± 0.05V**.

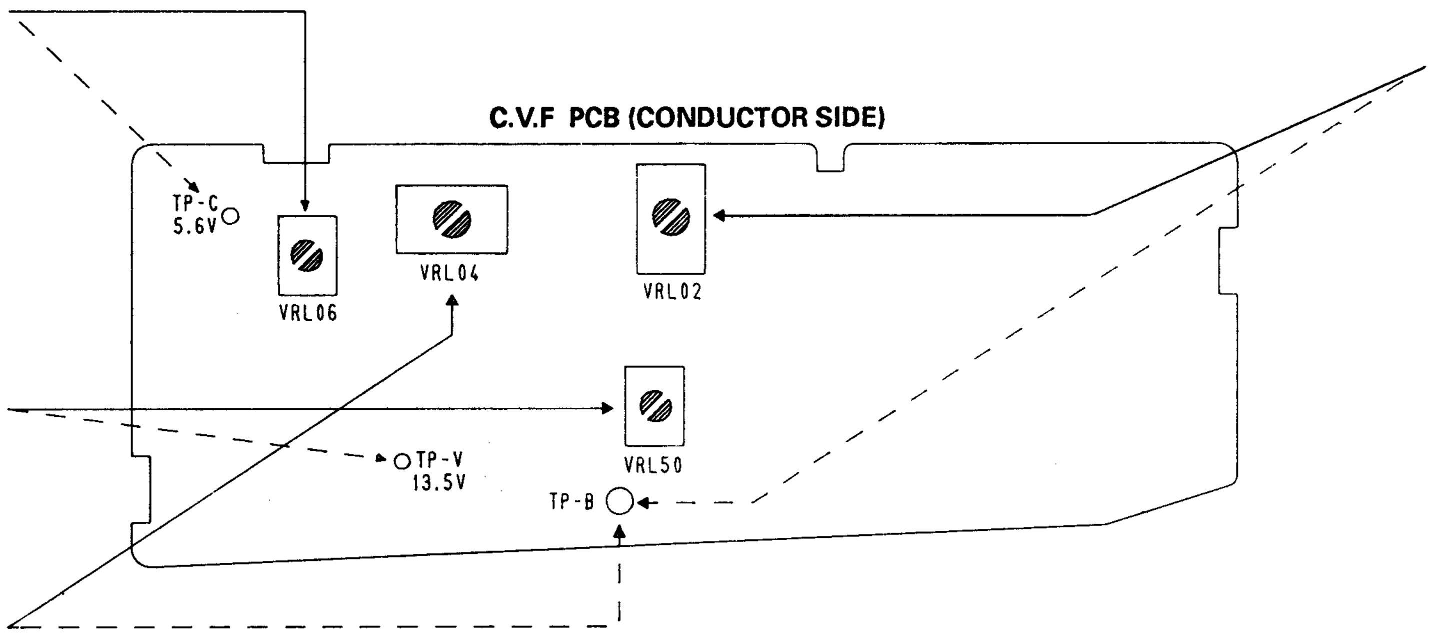
2 13.5V VOLTAGE

1. VCR "PB", Alignment tape (Color bar : SP).
2. TP-V & VRL50.
3. * Connect digital voltmeter probe to TP-V.
   * Adjust VRL50 so that the voltage is **DC 13.5V ± 0.1V**.

3 BRIGHTNESS

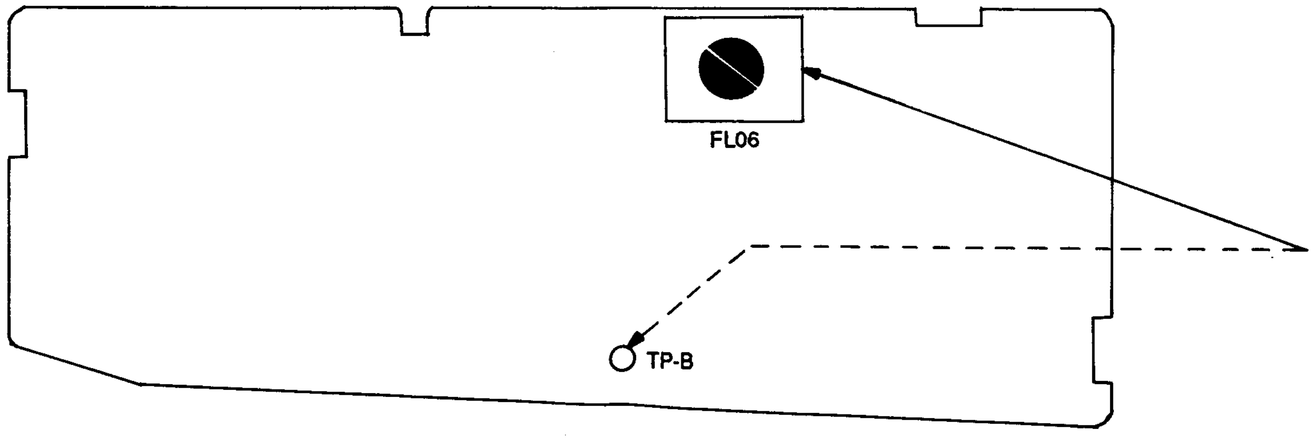
1. VCR "PB", Alignment tape (Color bar : SP).
2. TP-B & VRL04.
3. * Connect an oscilloscope probe to TP-B.
   * Adjust VRL04 so that blue level is **6.0V**.





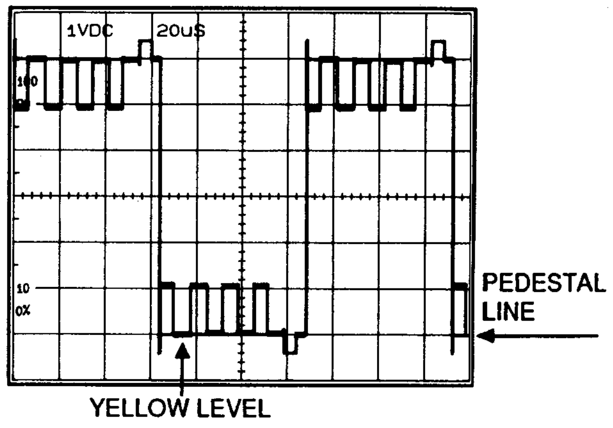
C.V.F PCB (CONDUCTOR SIDE)

C.V.F PCB (COMPONENT SIDE)



4 COLOR

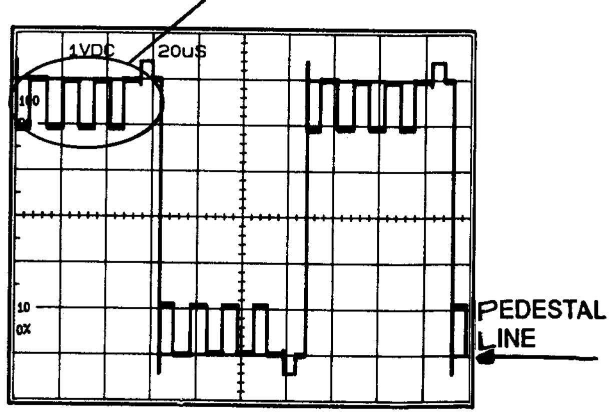
1. VCR "PB", Alignment tape (Color bar : SP).
2. TP-B & VRL02.
3. * Connect an oscilloscope probe to TP-B.
   * Adjust VRL02 so that yellow level is equal to pedestal line.



5 TRAP FILTER

1. VCR "PB", Alignment tape (Color bar : SP).
2. TP-B & FL06.
3. * Connect an oscilloscope probe to TP-B.
   * Adjust FL06 so that dual waveforms are concurred.

Dual waveforms are concurred.



9-3. VCR SECTION ADJUSTMENT

9-3-1. Preparations

Use the following measuring instruments for adjustment of the VCR block.

1. Equipment to be used

1) Monitor TV
2) Dual trace oscilloscope of over 10MHz band, incorporates delay mode. (Use 10 : 1 probe unless otherwise specified)
3) Frequency counter
4) Pattern generator with video output terminal
5) Digital voltmeter
6) DC power supply
7) Alignment tape (Color Bar : SP)
8) Tracking scope

2. Composition of VCR P.C.Boards

1) Main PCB (System Control/Servo, Video, Pre-Amp)
2) DC/DC Converter PCB
3) Audio PCB
4) Function VCR PCB

3. Connection of equipment

Unless otherwise specified, adjustment is made with the measuring instrument connected as shown in the diagram below.

- CAMERA/VCR power switch ..... VCR position

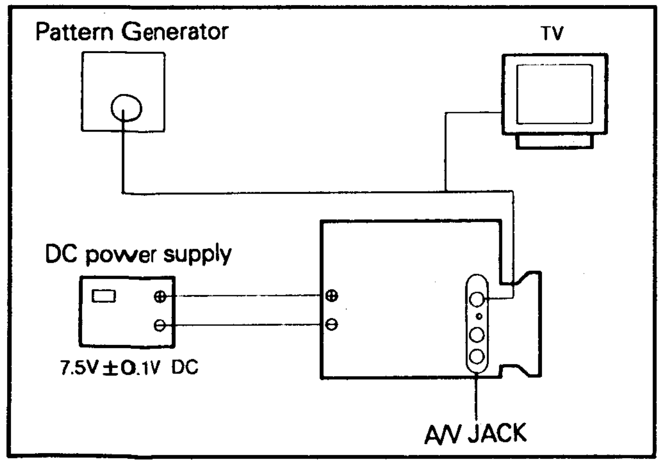

Pattern Generator
TV
DC power supply
7.5V±0.1V DC
A/V JACK

Fig. 1

4. Set-up during adjustment

Since the video output signal obtained from the pattern generator is used as the adjusting signal for the VCR block, it is necessary that this video output signal be within the required specifications. Connect an oscilloscope to video input jack and make sure that the amplitude of the video SYNC signal is approximately 0.3V, that the video block amplitude is approximately 0.7V, that the burst signal amplitude is approximately 0.3V with flat characteristics, and the signal level ratio between the burst signal and "Red" signal is 0.30 : 0.66. The video signal (color bars) used for VCR block electrical adjustment are shown in Fig. 2.

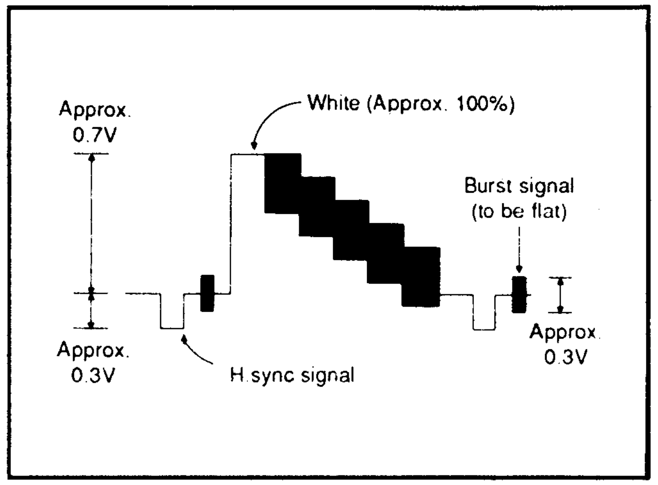
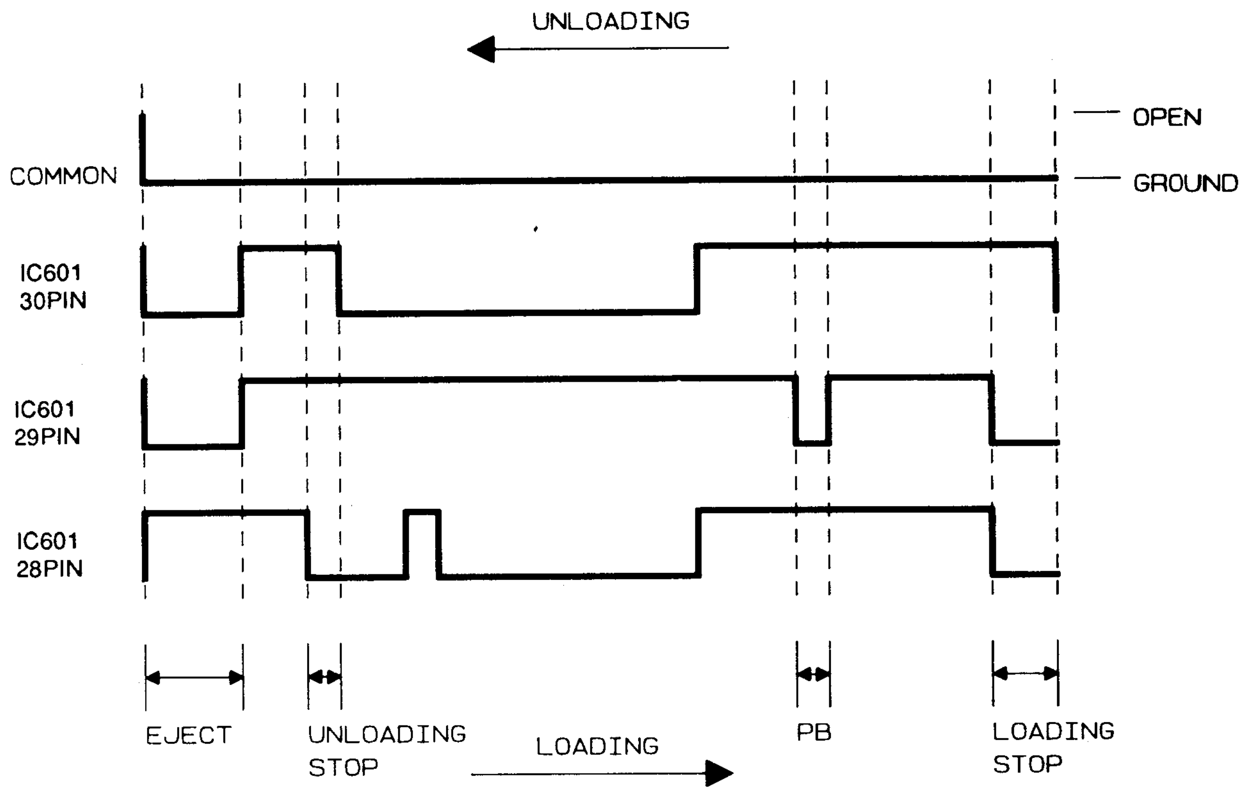

Approx. 0.7V
White (Approx. 100%)
Burst signal (to be flat)
Approx. 0.3V
H sync signal
Approx. 0.3V

Fig. 2 Color bar signal of pattern generator

Program switch timing chart

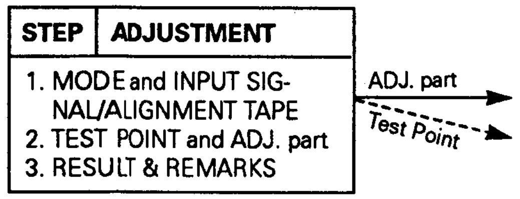

UNLOADING
OPEN
GROUND
COMMON
IC601 30PIN
IC601 29PIN
IC601 28PIN
EJECT
UNLOADING STOP
LOADING
PB
LOADING STOP

POSITION	IC601 30PIN	IC601 29PIN	IC601 28PIN	MODE
EJECT	L	L	H	EJECT
UNLOADING STOP	H	H	L	UNLOADING STOP
LOADING STOP	H	L	L	LOADING STOP
PB	H	L	H	PLAY. FF. REW. STILL...

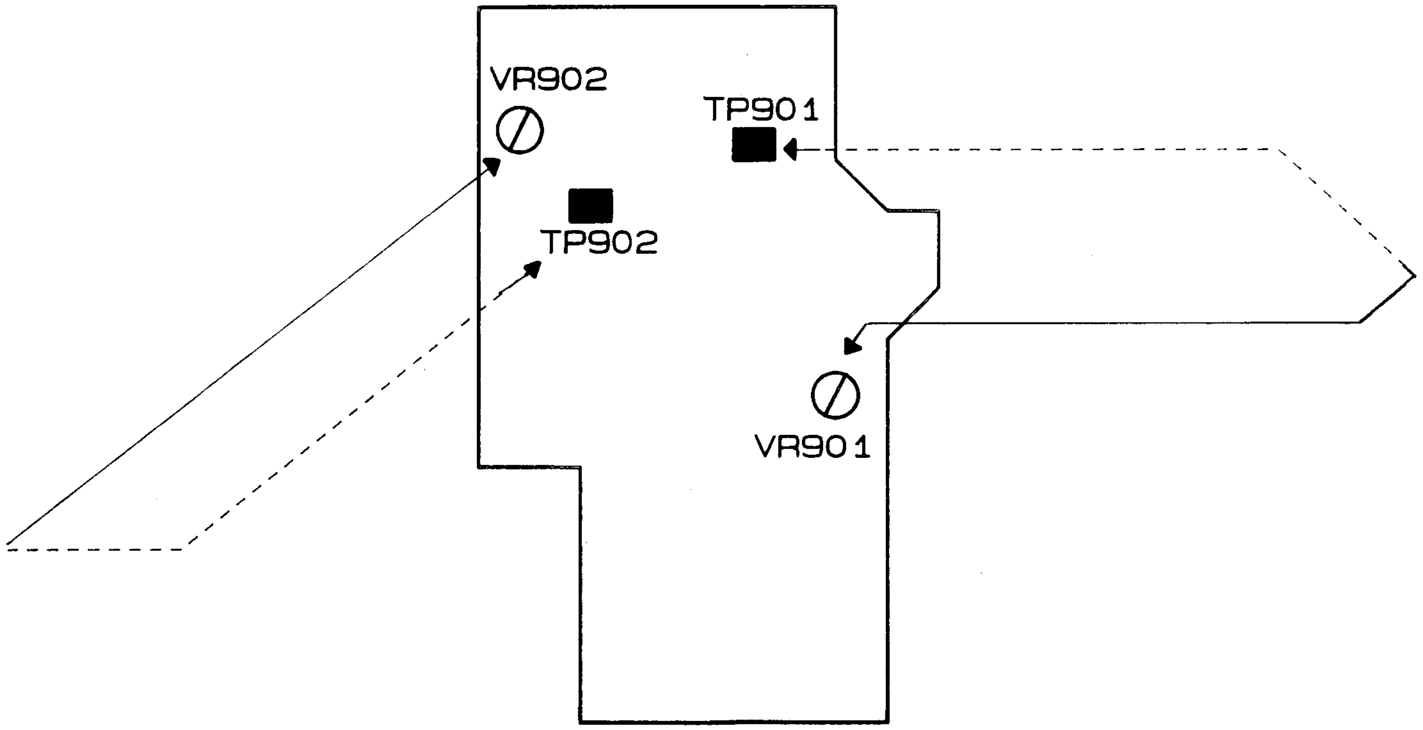
9-3-2. DC/DC CONVERTER Section

NOTE

From now on, the structure of every adjustment is as follows.



STEP	ADJUSTMENT
1. MODE and INPUT SIGNAL/ALIGNMENT TAPE 2. TEST POINT and ADJ. part 3. RESULT & REMARKS	



DC/DC CONVERTER PCB (CONPONENT SIDE)

1 | SS 5V

1. CAMERA, no signal input.
2. TP901 & VR901.
3. * Connect digital voltmeter probe to TP901(DC 5.13V).
   * Adjust VR901 so that the digital voltmeter becomes DC 5.13 ± 0.02V.

2 | CAMERA 5V

1. CAMERA & no signal input.
2. TP902 & VR902.
3. * Connect digital voltmeter probe to TP902(DC 5.07V).
   * Adjust VR902 so that the digital voltmeter becomes DC 5.07 ± 0.05V.

9-3-3. SERVO Section

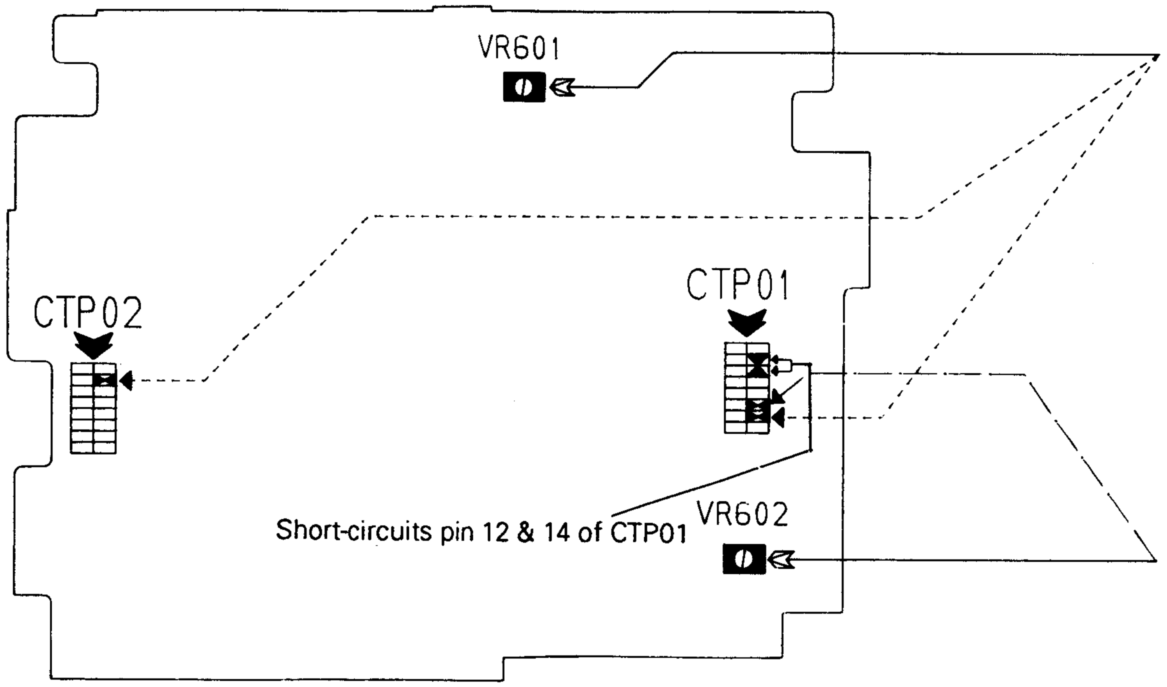
PIN NO. ARRANGEMENT

CTP01

15	16
13	14
11	12
9	10
7	8
5	6
3	4
1	2

CTP02

15	16
13	14
11	12
9	10
7	8
5	6
3	4
1	2


VR601
CTP02
CTP01
VR602
Short-circuits pin 12 & 14 of CTP01

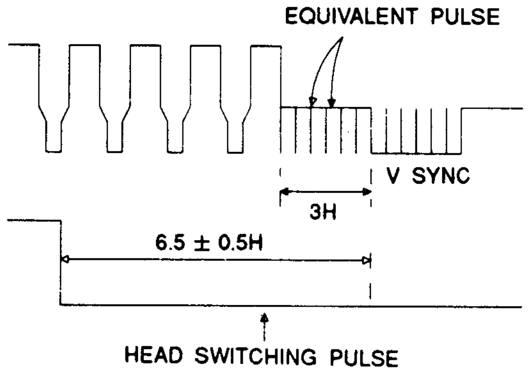
VCR MAIN PCB (CONPONENT SIDE)

1 HEAD SWITCHING POINT

ADJUSTMENT CONDITION

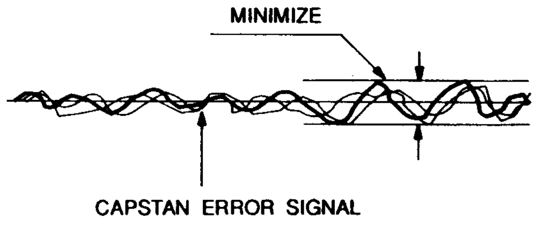
◆ Short-circuit pin 12 and pin 14 (TEST Mode) of CTP01.

1. "PB", Alignment tape (Color bar).
2. Pin 14 of CTP02, Pin 4 of CTP01 (Trigger) & VR601.
3. * Connect an oscilloscope's CH-1 to pin 4 of CTP01 for trigger and CH-2 to pin 14 of CTP02.
   * Adjust VR601 so that the switching point is positioned 6.5 ± 0.5H from the V-SYNC left edge as shown below.


EQUIVALENT PULSE
V SYNC
3H
6.5 ± 0.5H
HEAD SWITCHING PULSE

2 CAPSTAN FG

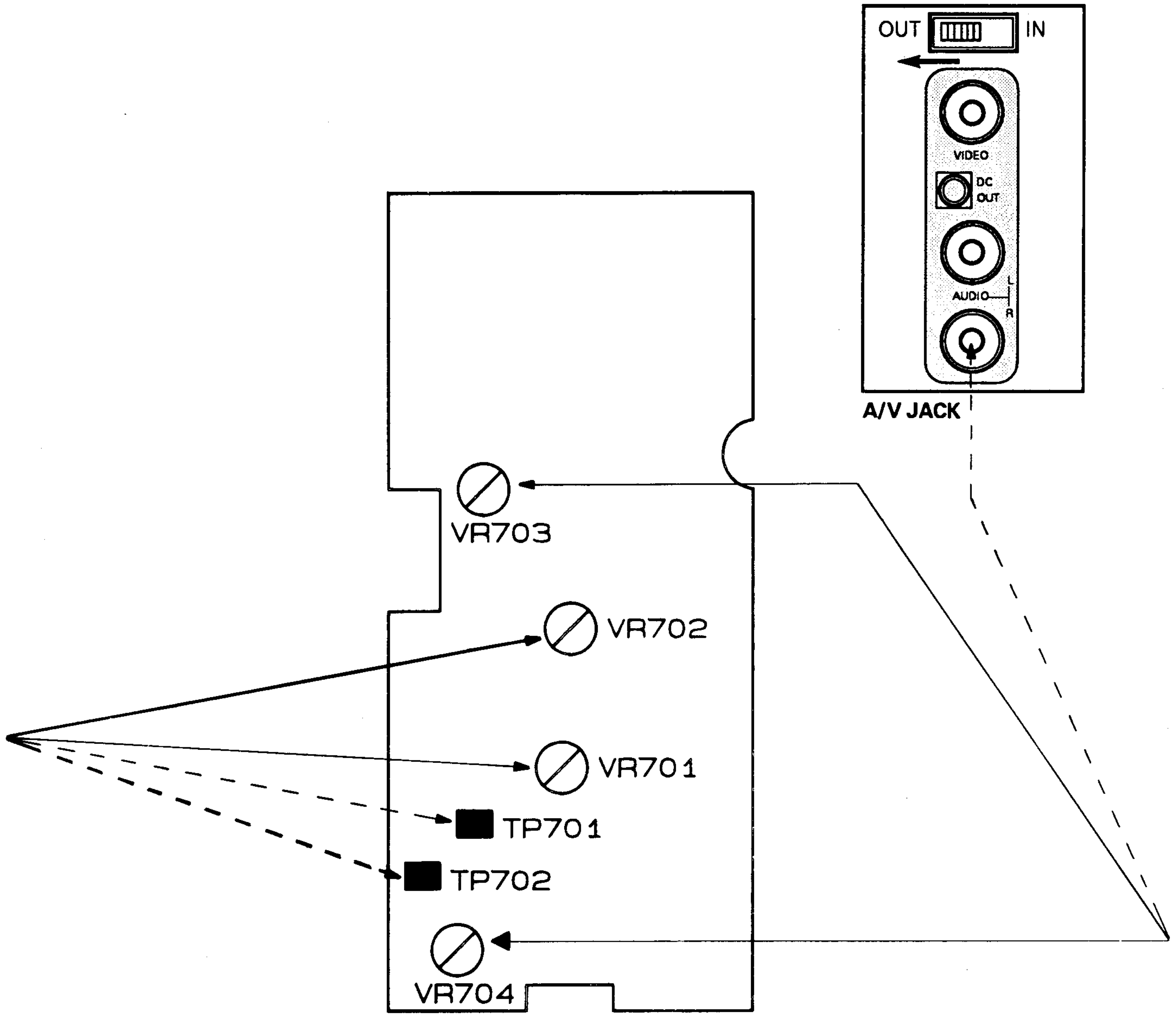
1. "LP-PB", Alignment tape (LP-Color bar).
2. Pin 6 of CTP01 & VR602.
3. * Connect an oscilloscope to pin 6 of CTP01.
   * Adjust VR602 to minimize the width of voltage with LP-PB mode.


MINIMIZE
CAPSTAN ERROR SIGNAL

9-3-4. AUDIO Section

1 CARRIER FREQUENCY

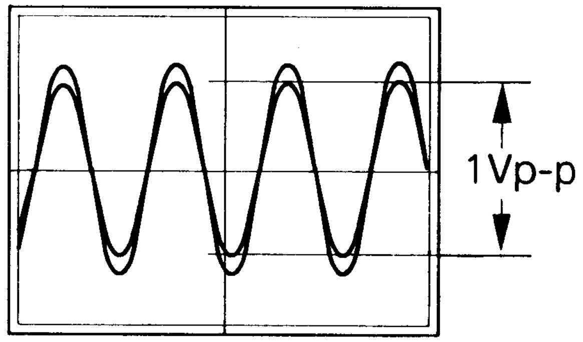
1. "PB", Alignment tape (Stereo).
2. TP701 (L-CH) & VR701 (L-CH),
   TP702 (R-CH) & VR702 (R-CH).
3. * Connect digital voltmeter probes to TP701.
   * Adjust VR701 so that the digital voltmeter becomes DC 2 ± 0.1V.
   * Connect digital voltmeter probes to TP702.
   * Adjust VR702 so that the digital voltmeter becomes DC 2 ± 0.1V.


OUT
IN
VIDEO
DC OUT
AUDIO
L
R
A/V JACK
VR703
VR702
VR701
TP701
TP702
VR704

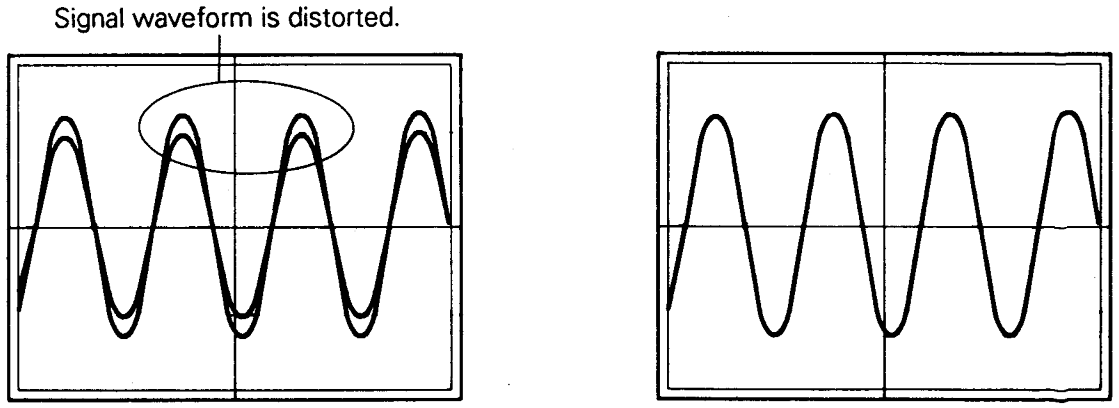
AUDIO MAIN PCB (CONPONENT SIDE)

2 DEVIATION

1. "PB", Alignment tape (Stereo).
2. Audio out jack (Right) & VR703 (L-CH), VR704 (R-CH).
3. * Set "IN/OUT" select S/W of A/V jack to "OUT".
   * Connect an oscilloscope to audio out jack "Right".
   * Adjust VR703 so that the output waveform of inner becomes 1.0Vp-p.



* Adjust VR704 so that the output waveform becomes 1.0Vp-p.


Signal waveform is distorted.

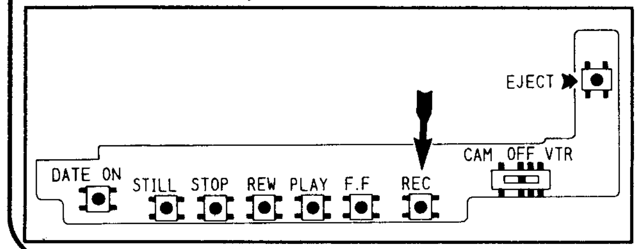
< Before Adjust >

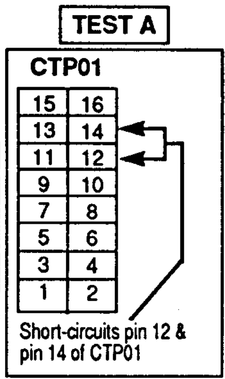
< After Adjust >

9-3-5. VIDEO Section

HOW TO RECORD

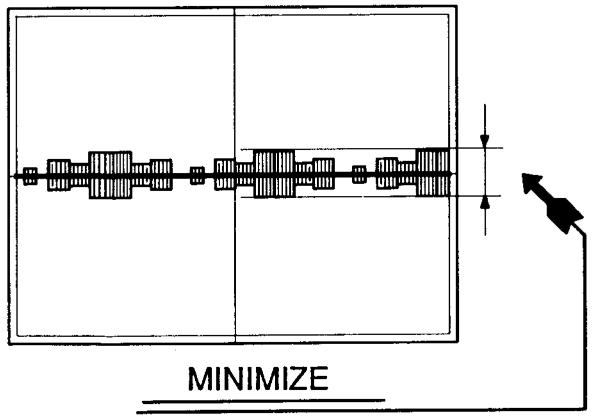
Use this method only when VCR is adjusted at recording mode.
- Short-circuits pin 12 & pin 14 of CTP01(TEST A).
- Push the "REC" key on VCR Function board.

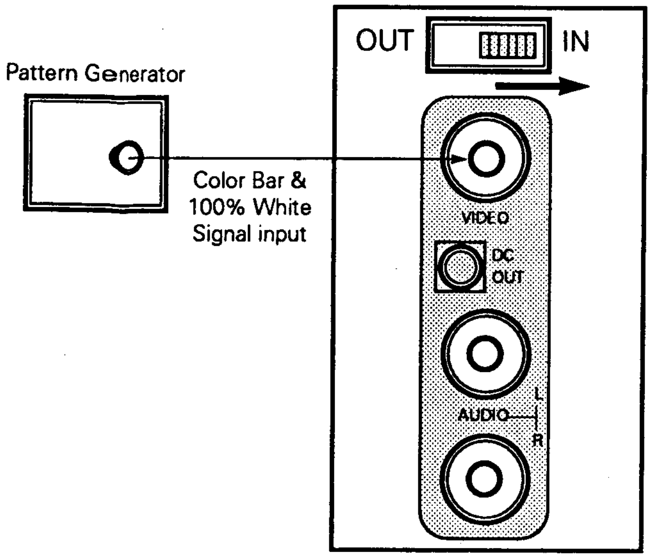

EJECT
CAM OFF VTR
DATE ON
STILL
STOP
REW
PLAY
F.F
REC


TEST A
CTP01
15 16
13 14
11 12
9 10
7 8
5 6
3 4
1 2
Short-circuits pin 12 & pin 14 of CTP01

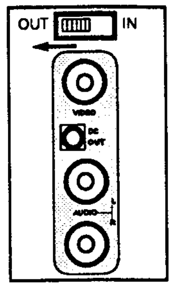
1 CCD COMB

1. "PB", Alignment tape (Color bar).
2. Pin 6 of CTP02 & VR451.
3. * Connect an oscilloscope to pin 6 of CTP02.
   * Adjust VR451 so that the color level is minimum as shown below.



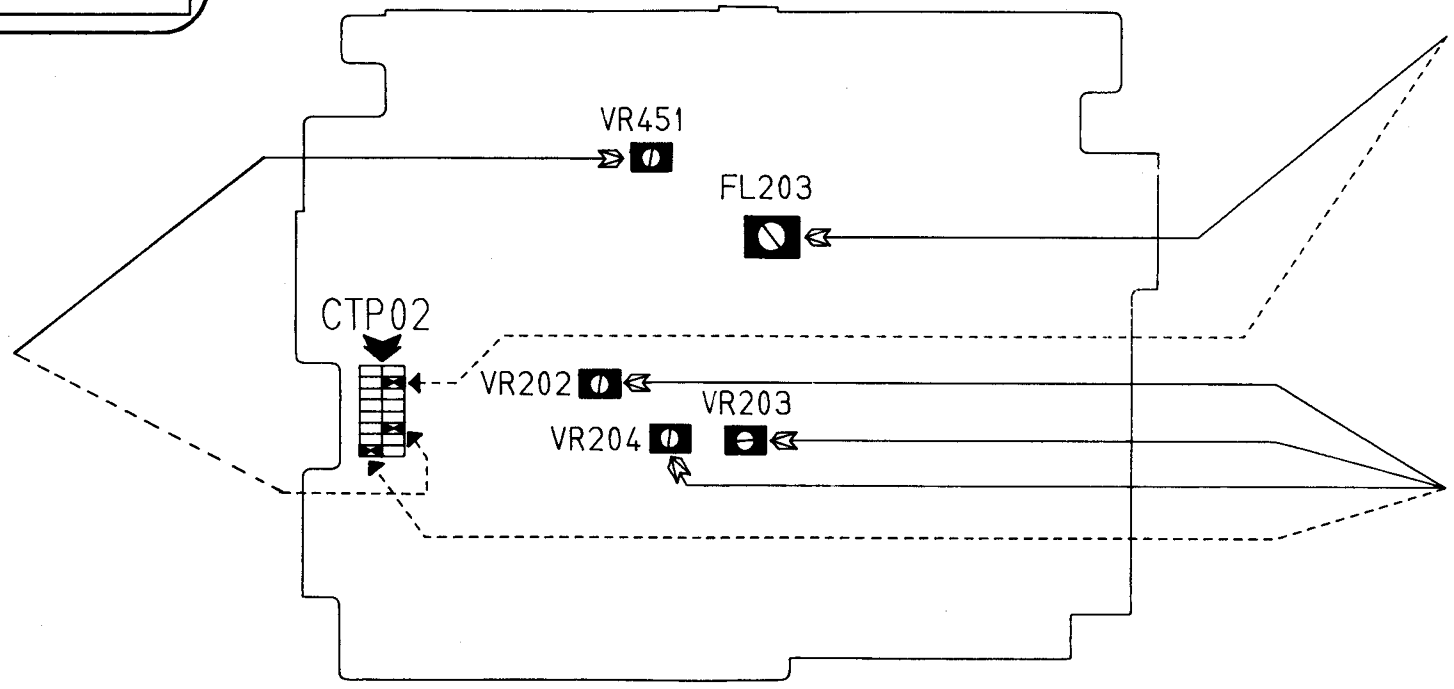

Pattern Generator
Color Bar & 100% White Signal input
OUT
IN
VIDEO
DC OUT
AUDIO
L
R

A/V JACK



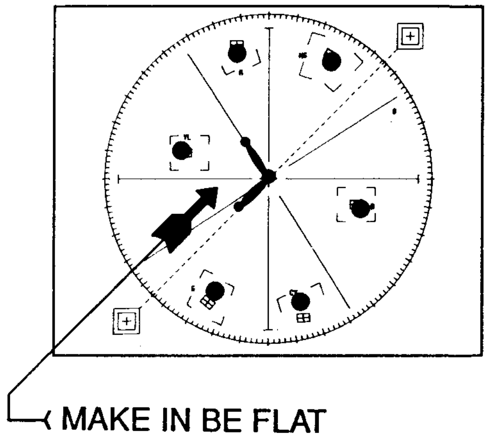
* Only if "Case Right Ass'y" is disassembled, "IN/OUT Select S/W" is showed.
* After finishing the adjustments, be sure to set "IN/OUT Select S/W" of A/V Jack to "OUT" and then perform the assembling process.

VCR MAIN PCB (CONPONENT SIDE)


VR451
FL203
CTP02
VR202
VR203
VR204

3 COLOR EMPHASIS (fo)

1. "PB", Alignment tape (Color bar).
2. Pin 14 of CTP02 & FL203.
3. * Set "IN/OUT Select S/W" of A/V jack to "OUT"
   * Connect a vector scope to video jack.
   * Adjust FL203 so that the burst becomes to flat.

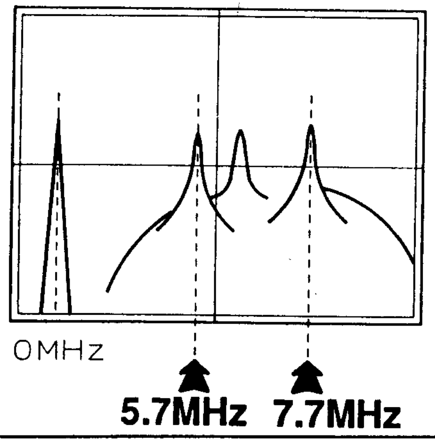

MAKE IN BE FLAT

2 Y-FM CARRIER & DEVIATION

1. "STOP", 100% White signal input to A/V jack(VIDEO).
2. Pin 1 of CTP02 &
   Hi-8 Mode : VR202, VR203
   Normal Mode : VR204.
3. * Connect a tracking scope to pin 1 of CTP02.

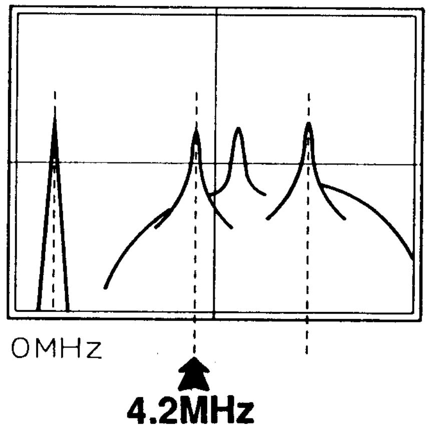
Hi-8 Mode

* Insert no signal tape (Hi-8)
* Adjust VR202, VR203 so that SYNC TIP signal becomes 5.7MHz, luminance signal becomes 7.7MHz.


OMHz
5.7MHz
7.7MHz

Normal Mode

* Insert no signal tape (Normal).
* Adjust VR204 so that SYNC TIP signal becomes 4.2MHz.



10. P.C.BOARDS

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10-2. AUDIO ------------------------------ 10-3

10-3. MIC ---------------------------------- 10-3

10-4. FUNCTION ROTARY --------------------- 10-3

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10-6. FUNCTION CAMERA -------------------- 10-5

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NOTE

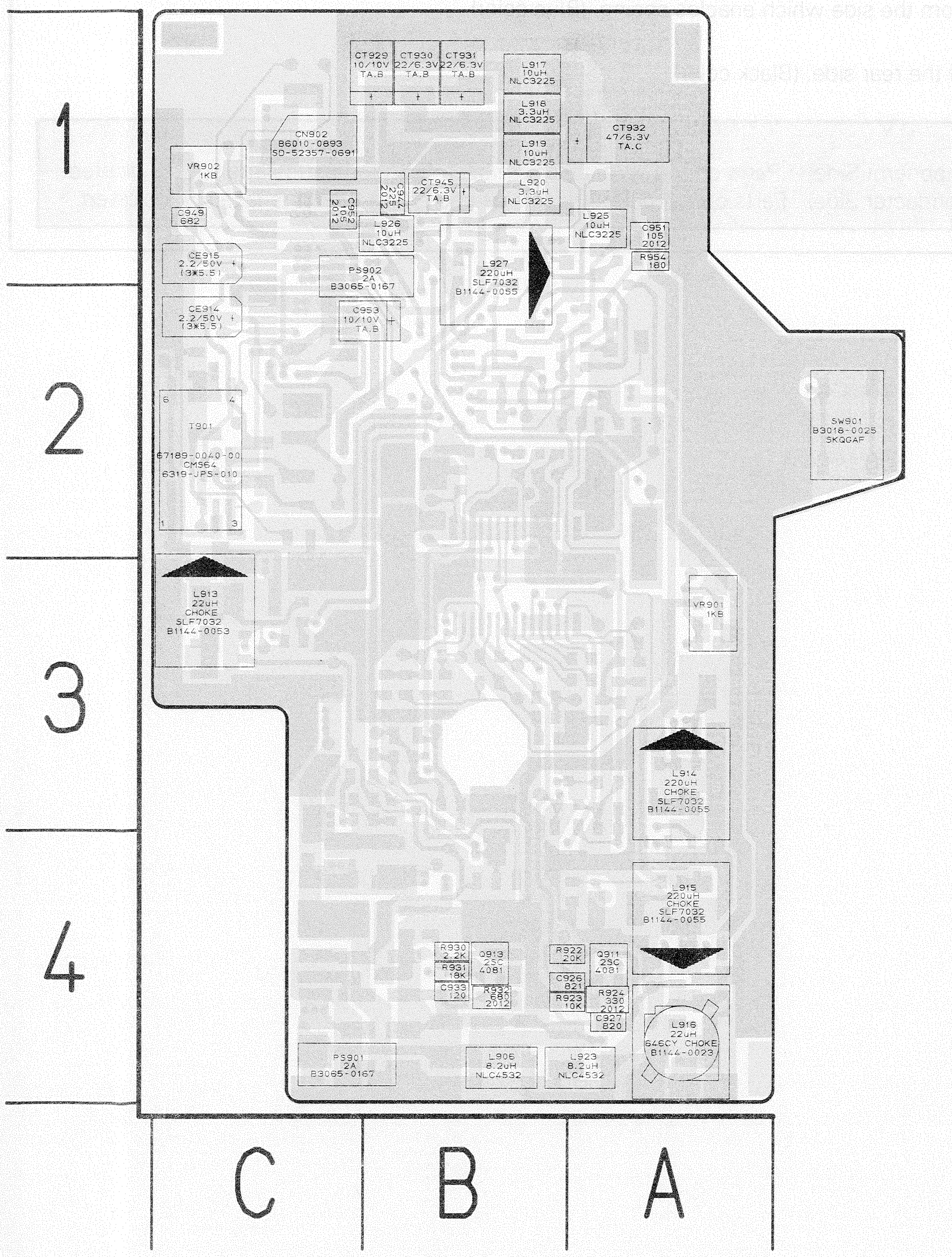
- For P.C.Board

▨ : Pattern from the side which enables seeing. (Blue color)

▨ : Pattern of the rear side. (Black color)

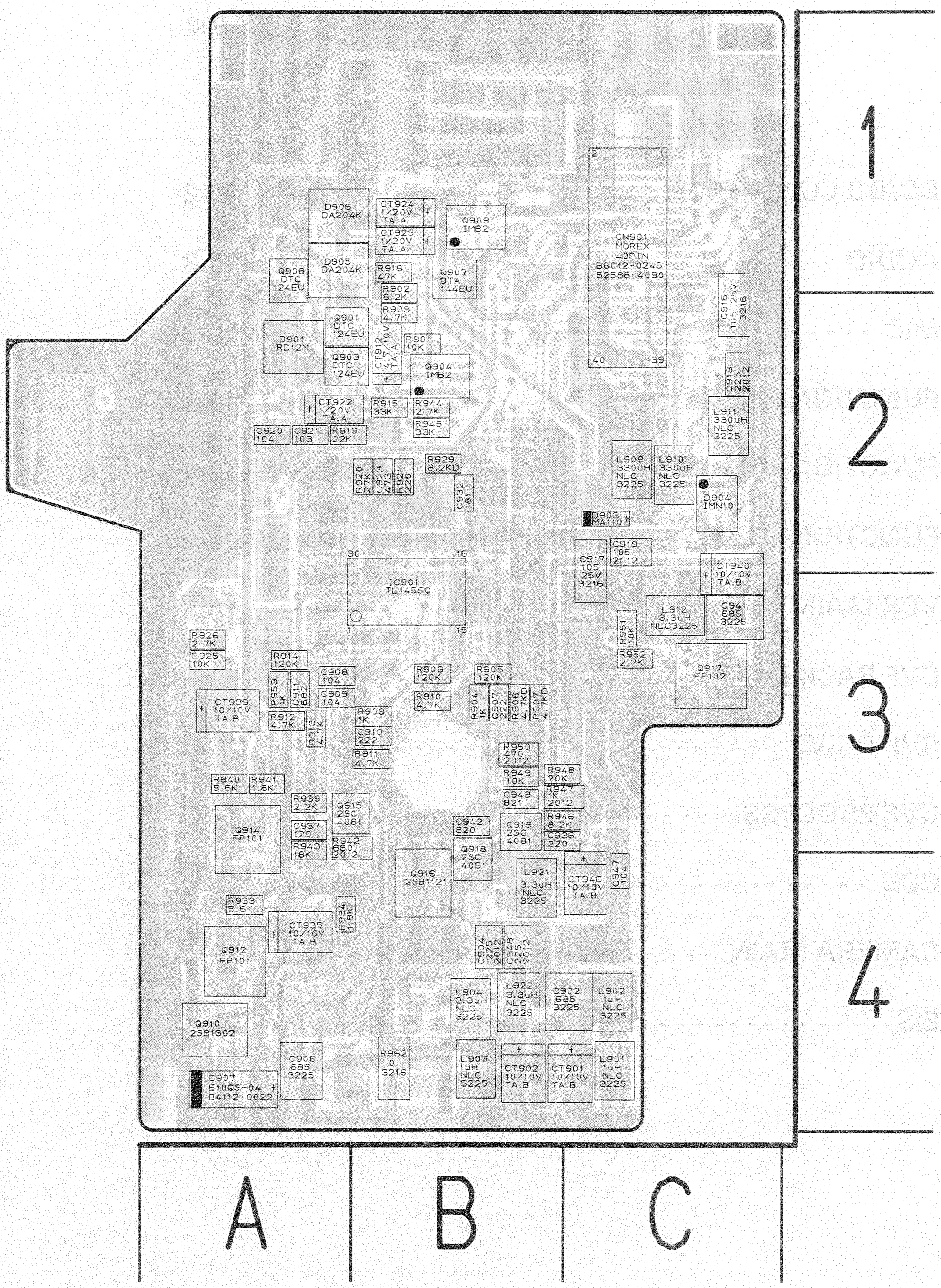
Caution :
Parts face side (Componemt Side) : Parts on the parts face side seen from the parts pattern are indicated.
Pattern face side (Conductor Side) : Parts on the pattern face side seen from the parts face are indicated.

10-1. DC/DC CONVERTER


1
2
3
4
C
B
A
CN902
T901
L913
L914
L915
L916
L917
L918
L919
L920
L925
L926
L927
PS901
PS902
Q911
Q913
VR901
VR902
SW901

(COMPONENT SIDE)

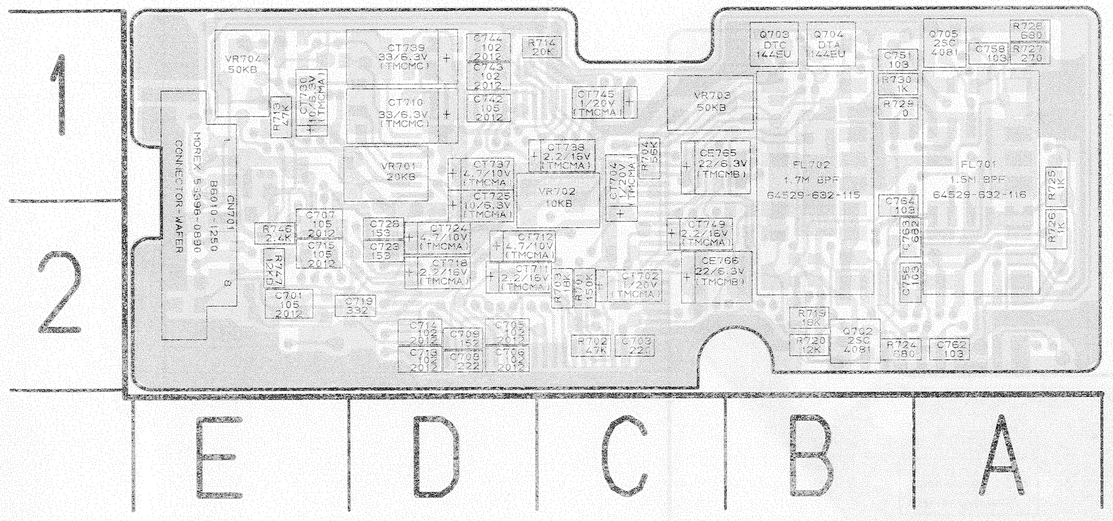
LOCATION	COORDINATES
L913	3-C
L914	3-A
L915	4-A
L916	4-A
L917	1-B
L918	1-B
L919	1-B
L920	1-B
L925	1-A
L926	1-B
L927	1-B
PS901	4-C
PS902	1-C
Q911	4-A
Q913	4-B
T901	2-C
VR901	3-A
VR902	1-C


1
2
3
4
A
B
C
CN901
IC901
D907
Q904
Q908
Q909
Q910
Q912
Q914
Q916
Q917
Q918
Q919
L901
L909
L910
L911
L912
L921

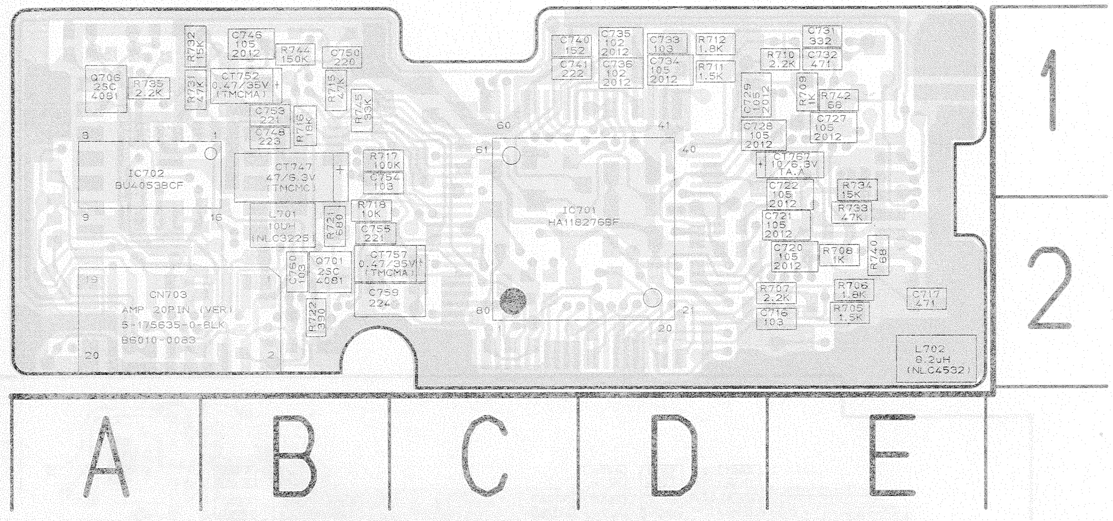
(CONDUCTOR SIDE)

LOCATION	COORDINATES
IC901	3-B
CN901	1-C
D907	4-A
Q904	2-B
Q908	1-A
Q909	1-B
Q910	4-A
Q912	4-A
Q914	3-A
Q916	4-B
Q917	3-C
Q918	4-B
Q919	3-B
L901	4-C
L909	2-C
L910	2-C
L911	2-C
L912	3-C
L921	4-B
C907	3-B
C911	3-A
R904	3-B
R905	3-B
R914	3-A
R925	3-A
R926	3-A
R940	3-A
R941	3-A
R944	2-B
R945	2-B
R953	3-A

10-2. AUDIO


1
2
E
D
C
B
A
VR704 50KB
VR701 20KB
VR702 10KB
VR703 50KB
FL702 1.7M BPF
FL701 1.5M BPF
CN701 MOREX 5296-0890

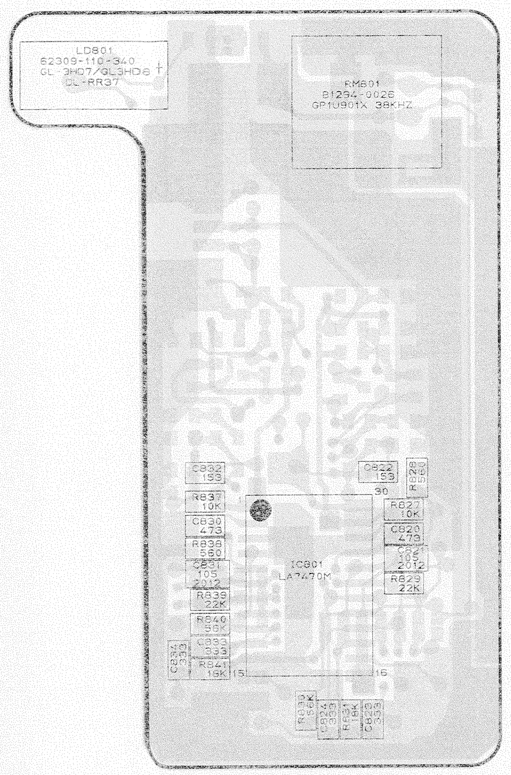
LOCATION	COORDINATES
VR701	1-D
VR702	1-C
VR703	1-C
VR704	1-E
CN701	2-E
FL701	1-A
FL702	1-B
Q702	2-B
C751	1-B
C756	2-B
C758	1-A

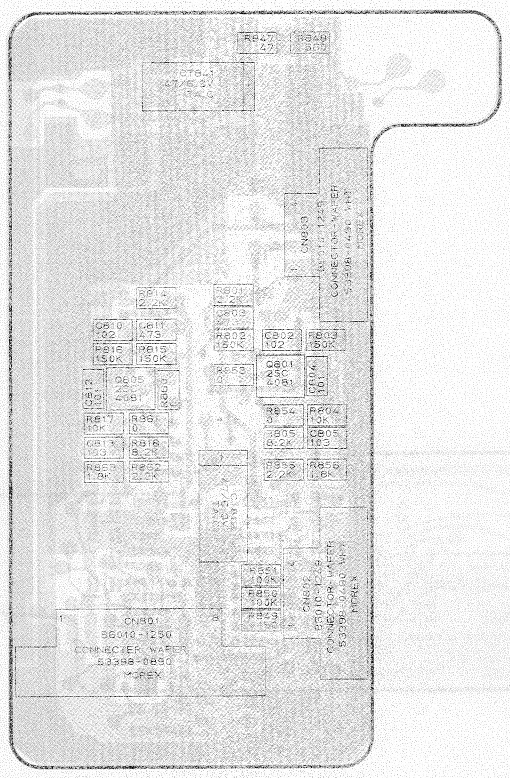

1
2
A
B
C
D
E
IC702 BU4053BCF
IC701 HA11827SSF
CN703 AMP 20PIN (VER)
L701 10uH
L702 8.2uH

LOCATION	COORDINATES
IC701	2-D
IC702	1-A
CN703	2-A
L701	2-B
Q701	2-B
R708	2-E
R709	1-E
R740	2-E
R742	1-E

(COMPONENT SIDE) (CONDUCTOR SIDE)

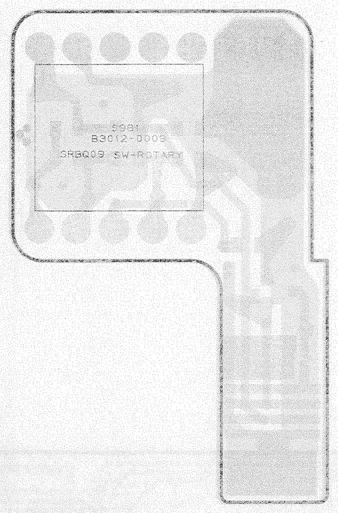
10-3. MIC

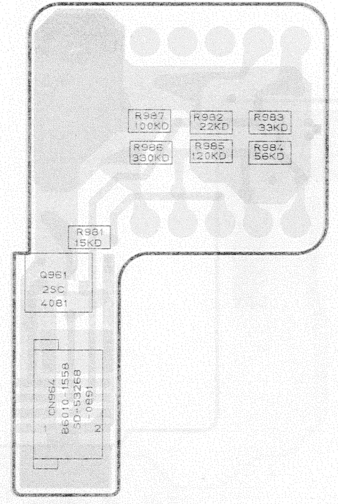

LD801
RM801
IC801 LA7470M


CN803
CN801 CONNECTOR WAFER MOREX
CN802

(COMPONENT SIDE) (CONDUCTOR SIDE)

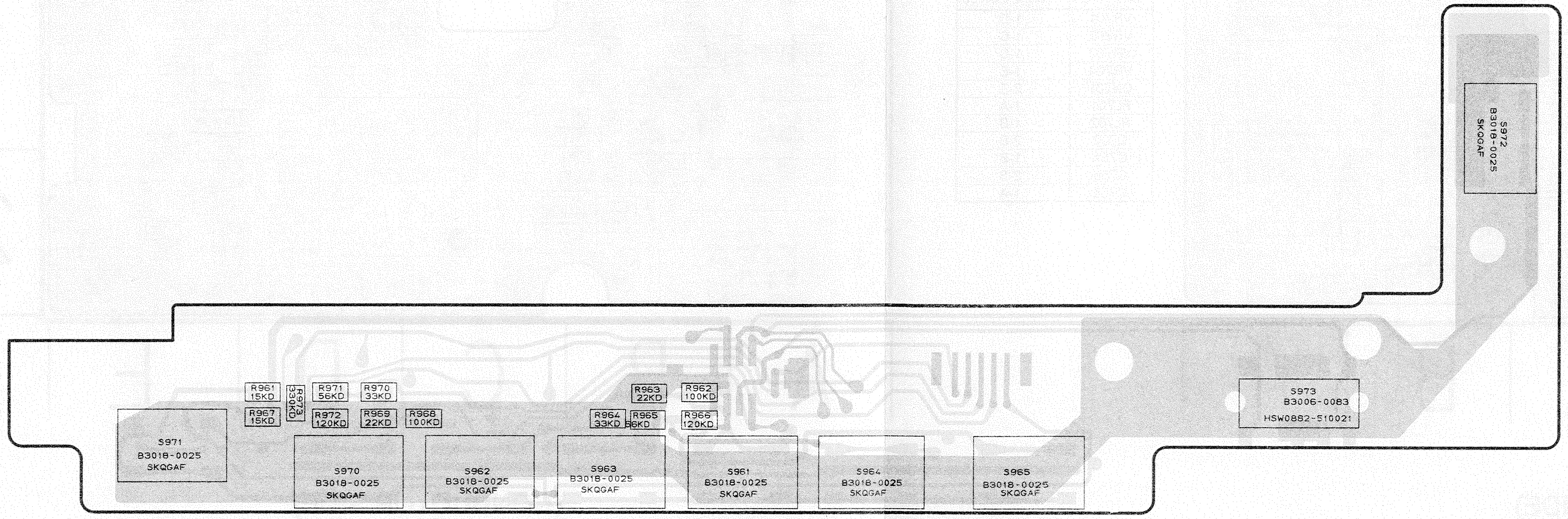
10-4. FUNCTION ROTARY


S981 SW-ROTARY

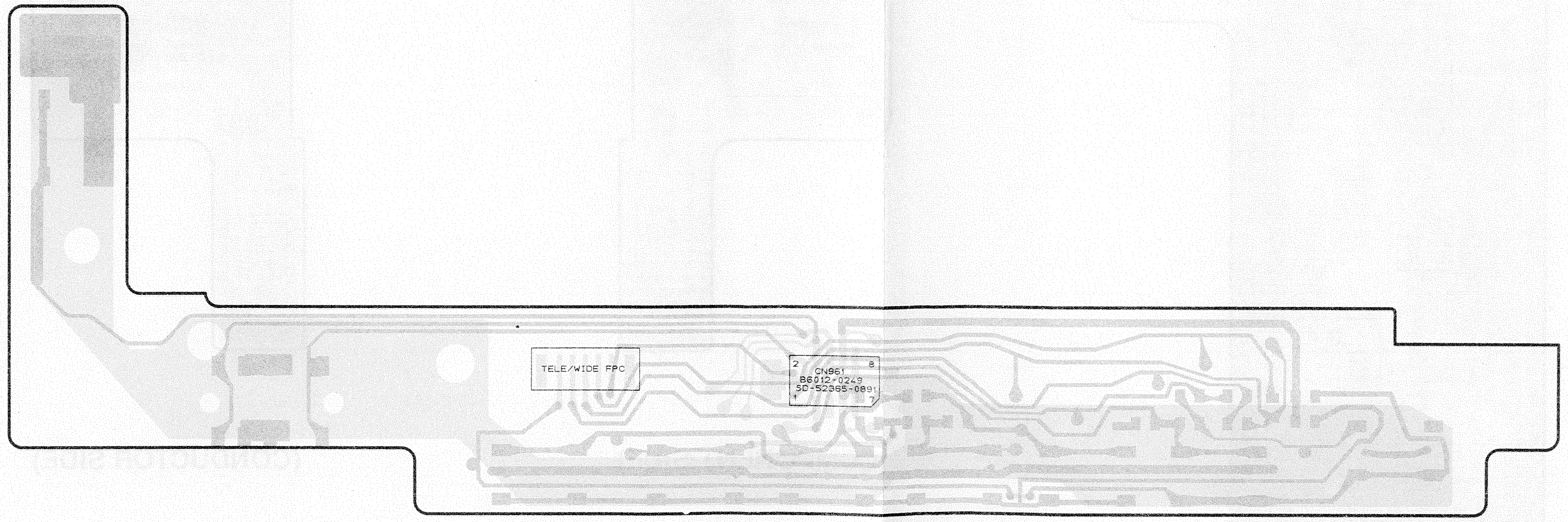


(COMPONENT SIDE) (CONDUCTOR SIDE)

10-5. FUNCTION VCR

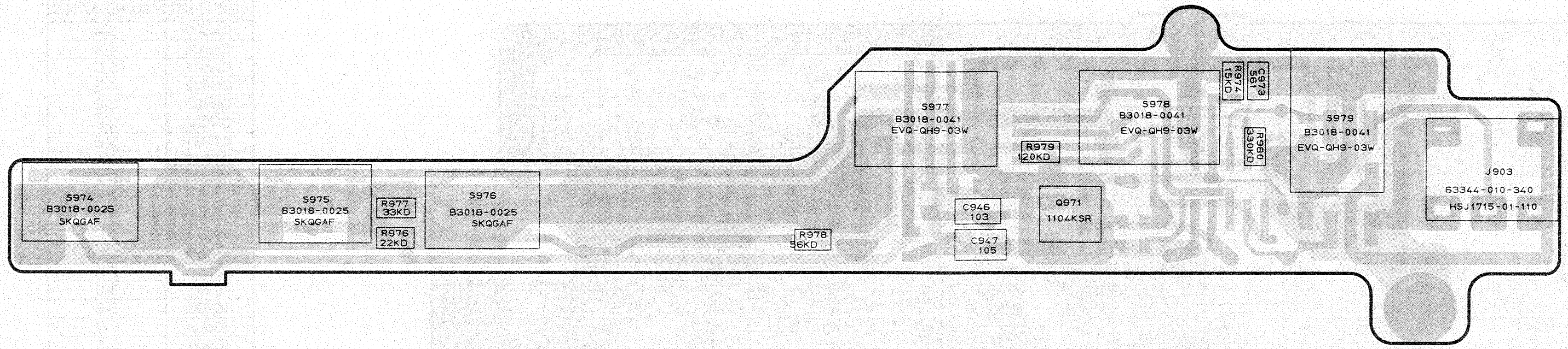

S972
B3018-0025
SKQGAF
R961
15KD
R973
330KD
R971
56KD
R970
33KD
R963
22KD
R962
100KD
R967
15KD
R972
120KD
R969
22KD
R968
100KD
R964
33KD
R965
56KD
R966
120KD
S973
B3006-0083
HSW0882-510021
S971
B3018-0025
SKQGAF
S970
B3018-0025
SKQGAF
S962
B3018-0025
SKQGAF
S963
B3018-0025
SKQGAF
S961
B3018-0025
SKQGAF
S964
B3018-0025
SKQGAF
S965
B3018-0025
SKQGAF

(COMPONENT SIDE)

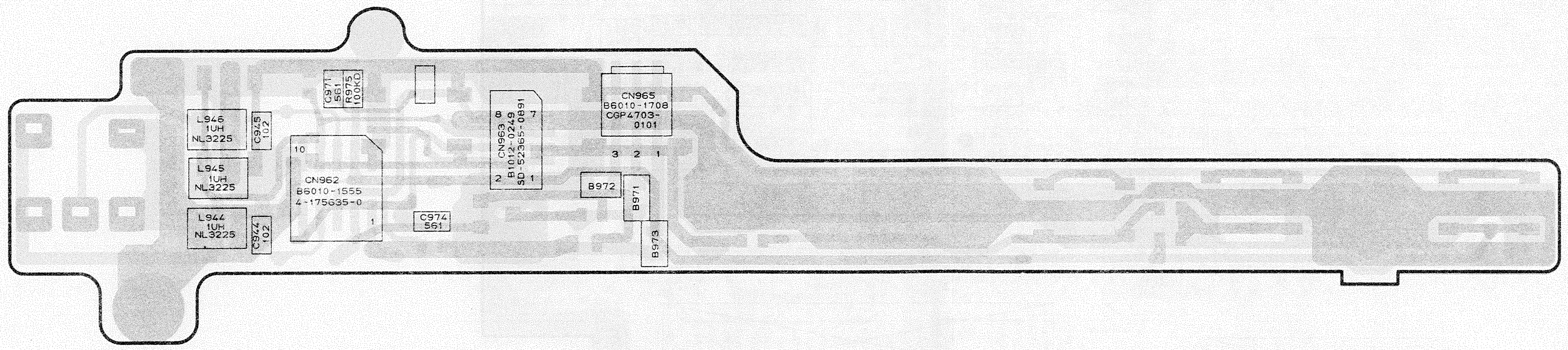

TELE/WIDE FPC
2
8
CN961
B6012-0249
SD-52365-0891
1
7

(CONDUCTOR SIDE)

10-6. FUNCTION CAMERA

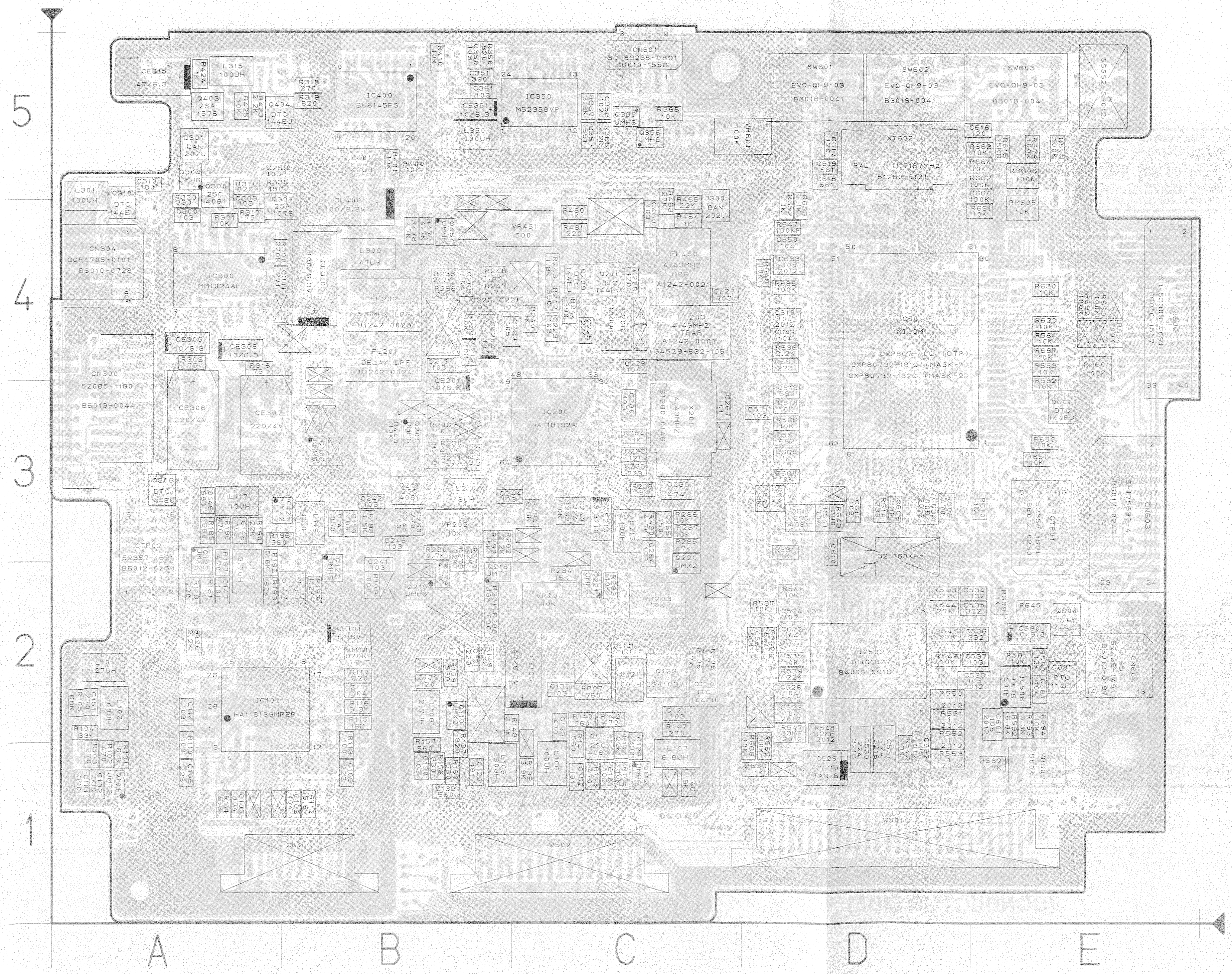

S974
B3018-0025
SKQGAF
S975
B3018-0025
SKQGAF
R977
33KD
R976
22KD
S976
B3018-0025
SKQGAF
R978
56KD
S977
B3018-0041
EVQ-QH9-03W
R979
120KD
C946
103
C947
105
Q971
1104KSR
S978
B3018-0041
EVQ-QH9-03W
R974
15KD
C973
561
R980
330KD
S979
B3018-0041
EVQ-QH9-03W
J903
63344-010-340
HSJ1715-01-110

(COMPONENT SIDE)


L946
1UH
NL3225
C945
102
L945
1UH
NL3225
L944
1UH
NL3225
C944
102
C971
561
R975
100KD
10
CN962
B6010-1555
4-175635-0
1
C974
561
8
7
CN963
B1012-0249
SD-52365-0891
2
1
CN965
B6010-1708
CGP4703-
0101
3
2
1
B972
B971
B973

(CONDUCTOR SIDE)

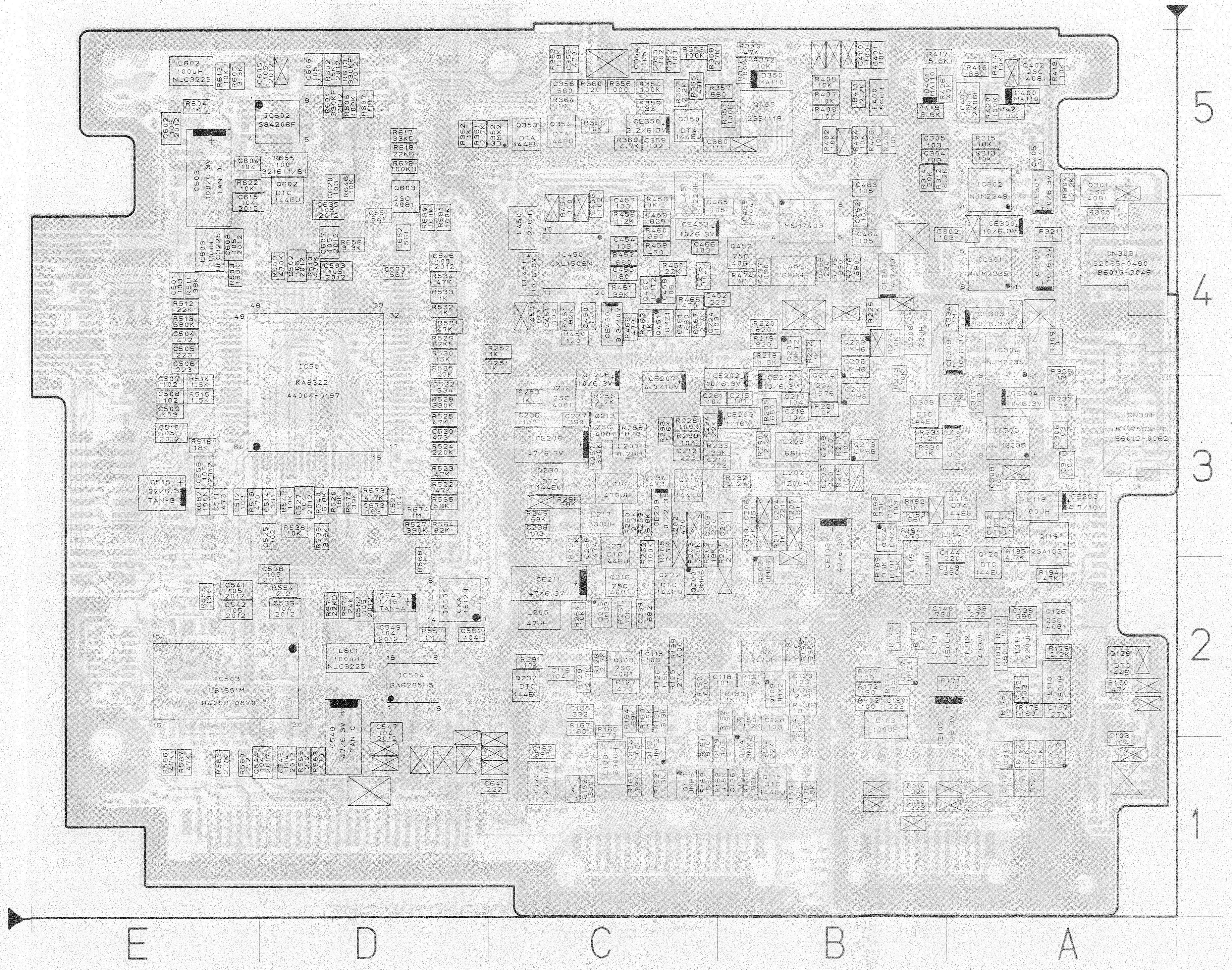
10-7. VCR MAIN


5
4
3
2
1
A
B
C
D
E
IC601 MICOM
IC200 HA118192A
IC101 HA118189MPER
IC502 TPIC1327
IC300 MM1024AF
IC400 BU6145FS
IC350 M52358FP
XT602
SW601
SW602
SW603
CN300
CN304
CN601
CN101
W502
W501

(COMPONENT SIDE)

LOCATION	COORDINATES
CN300	3-A
CN304	4-A
CN601	5-C
CN602	4-E
CN603	3-E
CN604	2-E
CTP01	3-E
CTP02	3-A
D301	5-A
FL201	4-B
FL202	4-B
FL203	4-C
FL450	4-C
IC101	2-A
IC200	3-C
IC400	5-B
IC502	2-D
IC506	2-E
IC601	4-D
L101	2-A
L102	2-A
L105	1-B
L106	1-C
L107	1-C
L108	2-B
L116	2-A
L117	3-A
L119	3-B
L121	2-C
L206	4-C
L210	3-B
L215	3-C
L300	4-B
L301	5-A
L401	5-B
Q101	1-A
Q110	2-B

LOCATION	COORDINATES
Q111	2-C
Q112	1-C
Q121	3-A
Q122	2-B
Q123	2-B
Q125	3-A
Q129	2-C
Q130	2-C
Q209	4-C
Q210	4-C
Q211	4-C
Q216	2-B
Q217	3-B
Q218	2-B
Q221	2-C
Q300	5-A
Q302	3-B
Q304	5-A
Q306	3-A
Q310	5-A
Q403	5-A
Q404	5-A
Q455	4-B
Q601	3-E
Q604	2-E
Q606	2-E
SW601	5-D
SW602	5-D
SW603	5-E
SW604	5-E
VR202	3-B
VR203	2-C
VR204	2-C
VR451	4-C
VR601	5-D
X201	3-C
XT602	5-D

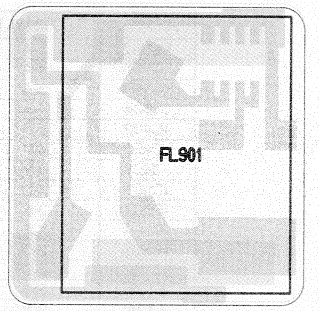

5
4
3
2
1
E
D
C
B
A
IC501
KA8322
IC503
LB1651M
IC504
BA6285FS
IC450
CXL1506N
IC302
NJM2248
IC301
NJM2235
IC304
NJM2235
IC303
NJM2235
IC602
S8420BF
CN303
CN301
MSM7403

(CONDUCTOR SIDE)

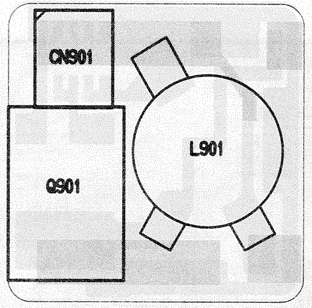
LOCATION	COORDINATES
D4002	5-A
IC301	4-A
IC303	3-A
IC304	4-A
IC402	5-A
IC450	4-C
IC451	4-B
IC501	4-D
IC503	2-E
IC504	2-D
IC505	2-D
IC602	5-D
L103	2-B
L104	2-B
L105	2-C
L109	1-C
L110	2-A
L112	2-A
L113	2-B
L114	3-A
L115	2-B
L118	3-A
L122	2-C
L203	3-B
L204	4-B
L207	3-C
L208	4-B
L400	5-B
L450	4-C
L451	4-C
L452	4-B
L601	2-D
L602	5-E
L603	4-E
Q106	1-A
Q107	1-A

LOCATION	COORDINATES
Q108	2-C
Q109	2-B
Q114	1-B
Q115	1-B
Q116	1-C
Q117	1-C
Q119	3-A
Q120	2-A
Q126	2-A
Q127	2-B
Q128	2-A
Q202	2-B
Q203	3-B
Q204	3-B
Q205	4-B
Q206	4-B
Q207	3-B
Q208	4-B
Q212	3-C
Q213	3-C
Q214	3-C
Q215	2-C
Q216	2-C
Q232	2-C
Q306	3-B
Q402	4-A
Q450	4-C
Q451	4-C
Q452	4-B
Q453	5-B
Q602	5-D
Q603	5-D
Q606	1-D
Q607	1-D
Q608	1-D

10-8. CVF BACK LIGHT

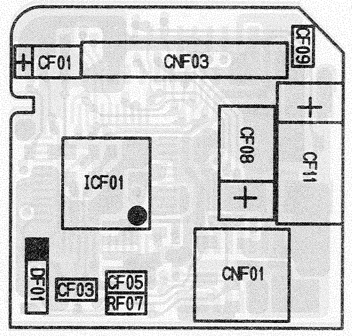


(COMPONENT SIDE)

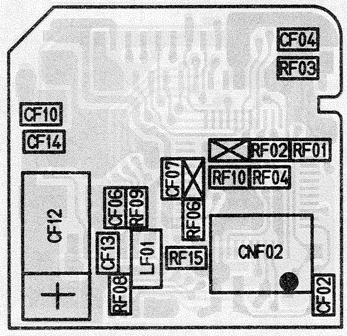

CN901
L901
Q901

(CONDUCTOR SIDE)

10-9. CVF DRIVE

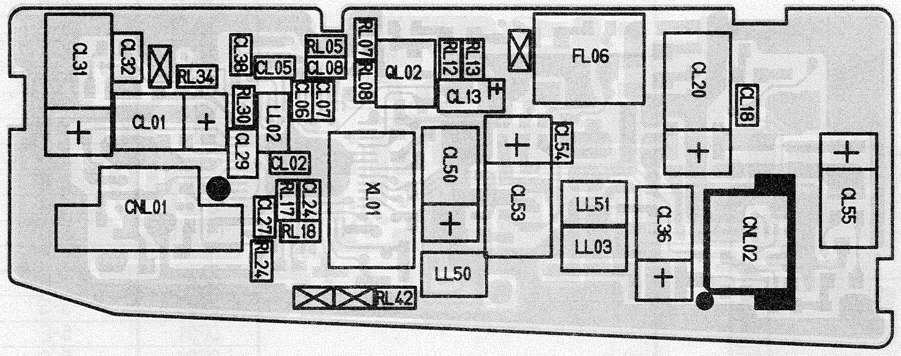

CF01
CNF03
CF09
ICF01
CF08
CF11
CF03
CF05
RF07
CNF01

(COMPONENT SIDE)

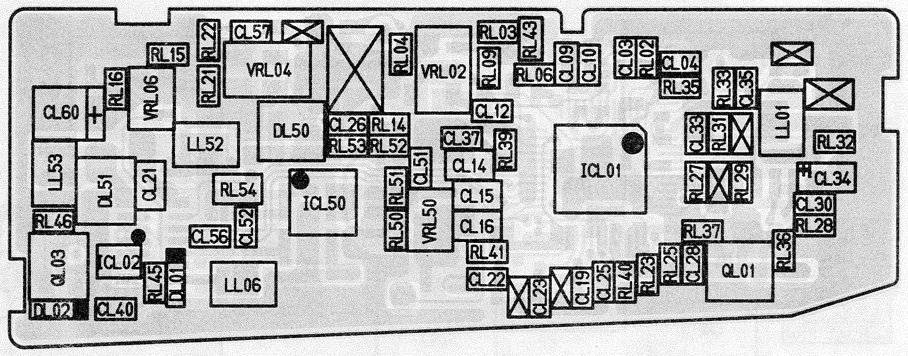

CF04
RF03
CF10
CF14
RF02
RF01
RF10
RF04
CF07
CF12
CF06
RF09
RF06
CF13
LF01
RF15
CNF02
RF08
CF02

(CONDUCTOR SIDE)

10-10. CVF PROCESS

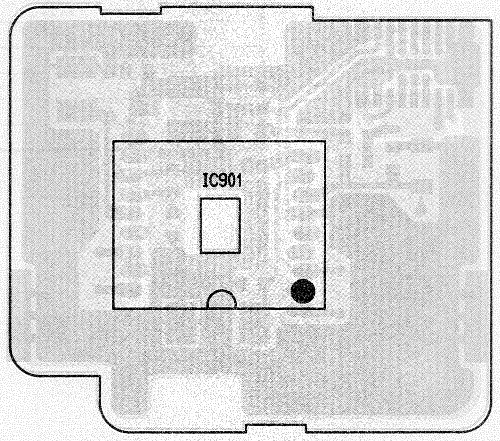

CL31
CL32
RL34
CL38
CL05
RL05
CL08
RL07
RL08
QL02
RL12
RL13
CL13
FL06
CL20
CL18
CL01
RL30
LL02
CL06
CL07
CL29
CL02
CNL01
RL17
CL24
CL27
RL18
RL24
XL01
CL50
CL53
CL54
LL51
LL03
LL50
CL36
CNL02
CL55
RL42

(COMPONENT SIDE)

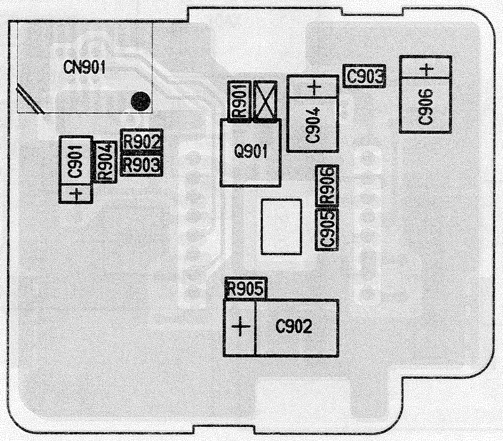

RL22
CL57
RL15
RL21
VRL04
RL04
VRL02
RL03
RL43
RL09
RL06
CL09
CL10
CL03
RL02
CL04
RL35
RL33
CL35
LL01
RL16
VRL06
CL60
LL52
DL50
CL26
RL14
RL53
RL52
CL12
CL37
RL39
ICL01
CL33
RL31
RL32
LL53
DL51
CL21
RL54
ICL50
CL51
CL14
RL51
RL27
RL29
CL34
CL15
VRL50
RL50
CL16
CL30
RL28
RL46
CL56
CL52
RL41
RL37
RL36
QL03
ICL02
RL45
DL01
LL06
CL22
CL23
CL19
CL25
RL40
RL23
RL25
CL28
QL01
DL02
CL40

(CONDUCTOR SIDE)

10-11. CCD

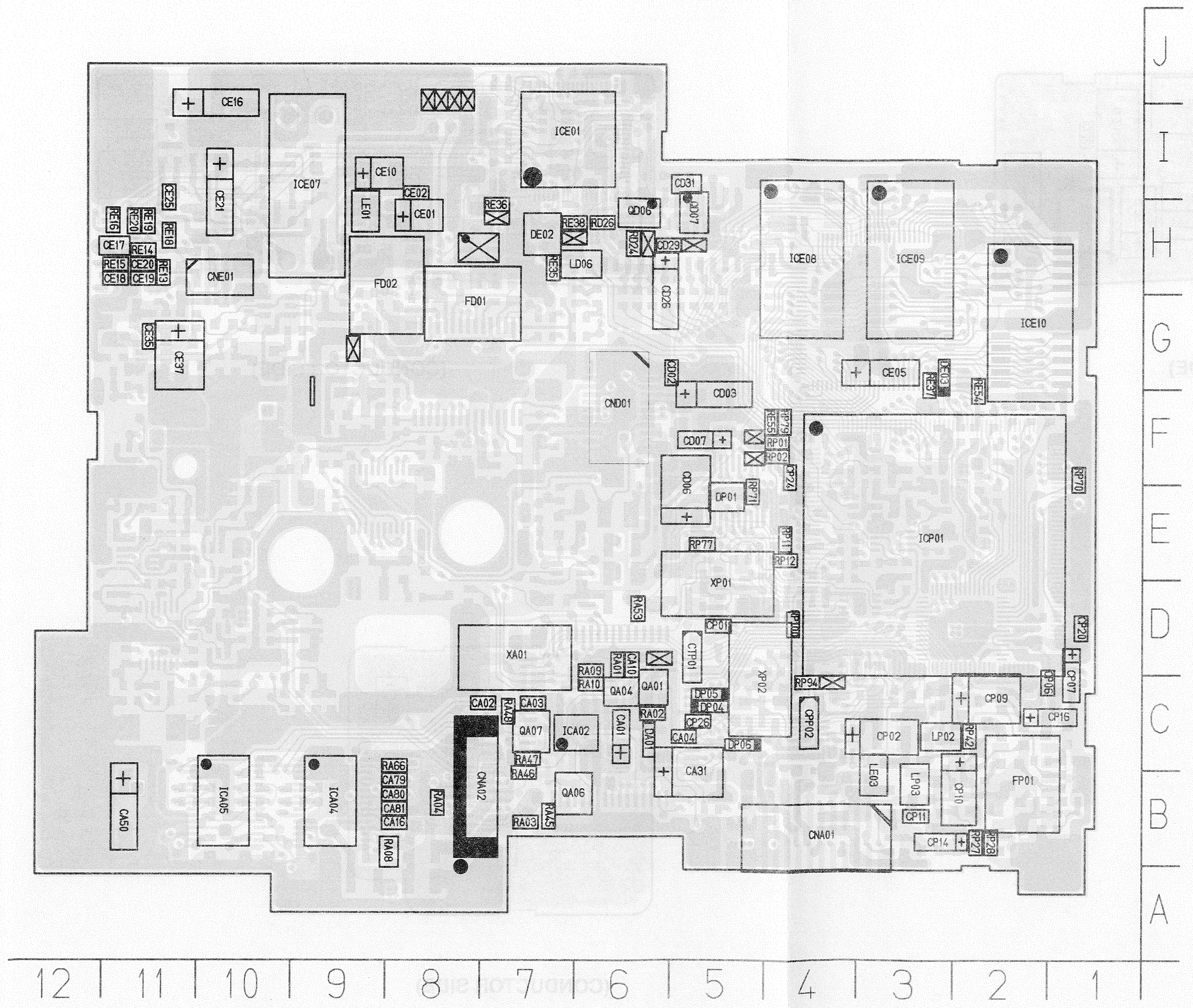


(COMPONENT SIDE)


CN901
R901
C903
C906
C904
R902
R903
C901
R904
Q901
R906
C905
R905
C902

(CONDUCTOR SIDE)

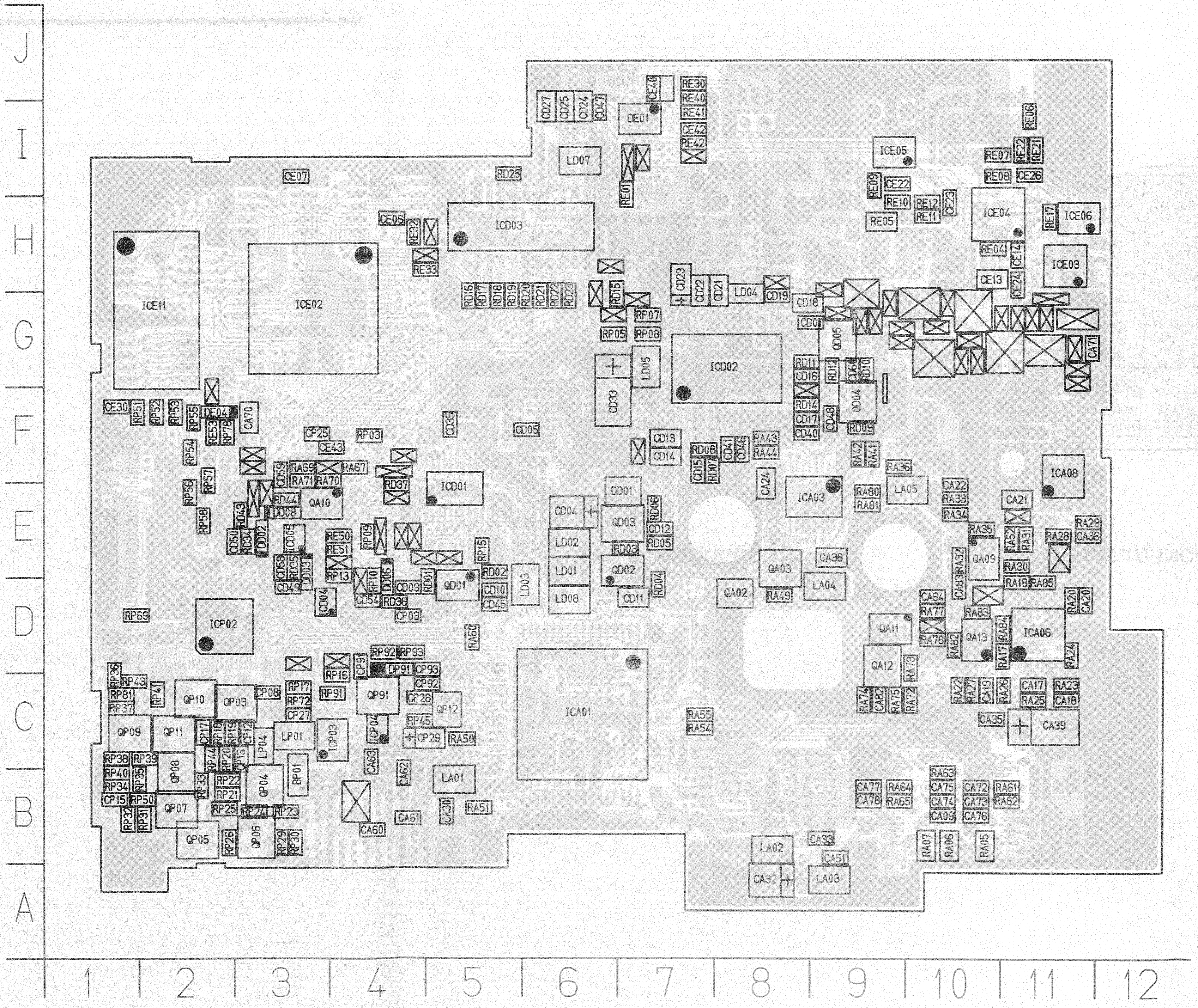
10-12. CAMERA MAIN


J
I
H
G
F
E
D
C
B
A
12
11
10
9
8
7
6
5
4
3
2
1
CE16
ICE01
CE21
ICE07
CE10
LE01
CE02
CE01
RE36
DE02
RE38
RD26
QD06
CD31
QD07
RE16
RE20
RE19
RE18
CE25
CE17
RE14
RE15
CE20
RE13
CE18
CE19
CNE01
FD02
FD01
RE35
LD06
RD24
CD29
CD26
ICE08
ICE09
ICE10
CE36
CE37
CD02
CND01
CD03
CE05
DE03
RE37
RE54
CD07
RE55
RP79
RP01
RP02
CD06
DP01
RP71
RP24
RP70
RP77
RP11
RP12
ICP01
XP01
RA53
XA01
CP01
CTP01
XP02
RP100
CP20
CP07
RA09
RA10
RA01
CA10
QA04
QA01
DP05
DP04
RP94
CP06
CP09
CP16
CA02
RA48
CA03
QA07
ICA02
CA01
RA02
DA01
CP26
CA04
DP06
CP02
CP02
LP02
RP42
CA31
LE03
LP03
CP10
FP01
CA50
ICA05
ICA04
RA66
CA79
CA80
CA81
CA16
RA08
RA04
CNA02
RA47
RA46
QA06
RA03
RA45
CP11
CNA01
CP14
RP27
RP28

LOCATION	COORDINATES
CA01	6-C
CA31	5-C
CNA01	4-B
CNA02	8-B
CND01	6-F
CNE01	10-H
CP02	3-C
CP07	1-D
CP09	2-C
CP10	2-B
CP14	3-B
CTP01	5-D
DA01	6-C
DE02	7-H
DE03	3-G
DP01	5-E
DP04	5-C
DP05	5-C
FD01	8-H
FD02	9-H
FP01	2-B
ICA02	7-C
ICA04	9-B
ICA05	10-B
ICE01	7-I
ICE07	10-I
ICE08	4-H
ICE09	3-H
ICE10	2-G
ICP01	3-E
LD06	7-H
LE01	9-H
LE03	3-C
LP02	3-C
LP03	3-B
QA01	6-C
QA04	6-C
QA06	7-B
QA07	7-C
QD06	6-H
QD07	5-H
XA01	7-D
XP01	5-E
XP02	5-D

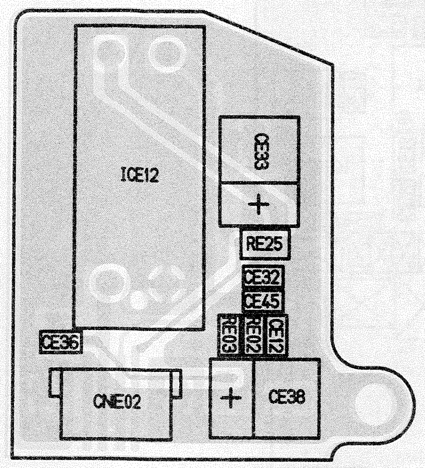
(COMPONENT SIDE)

LOCATION	COORDINATES
CD04	6-E
CD33	6-F
DD01	7-E
DE01	7-I
ICA01	6-C
ICA03	8-E
ICA06	11-D
ICA08	11-F
ICD01	5-F
ICD02	8-G
ICD03	5-H
ICD04	3-D
ICD05	3-E
ICE01	3-G
ICE03	11-H
ICE04	11-H
ICE05	9-I
ICE06	11-H
ICE11	2-G
ICP02	2-D
ICP03	4-C
LA01	5-B
LA02	8-B
LA04	9-E
LA05	9-F
LD01	6-E
LD03	5-D
LD04	8-G
LD05	7-G
LD07	6-I
LP01	3-C
LP04	3-C
QA09	10-E
QA10	3-E
QA12	9-D
QD01	5-E
QD02	7-E
QD04	9-F
QP04	3-B
QP11	2-C

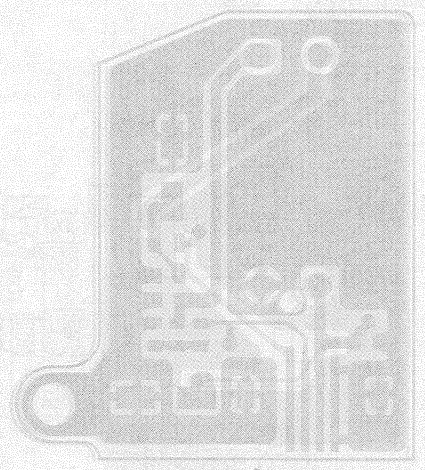

J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
ICE11
ICE02
ICD03
ICD02
ICD01
ICE04
ICE03
ICE05
ICE06
ICA01
ICA03
ICA06
ICA08
ICP02
ICP03
DE01
DD01
LD07
LD04
LD05
LD01
LD02
LD03
LD08
LA01
LA02
LA03
LA04
LA05
LP01
LP04
QA09
QA10
QA11
QA12
QA13
QD01
QD02
QD03
QD04
QD05
QP03
QP04
QP05
QP06
QP07
QP08
QP09
QP10
QP11
QP12
QP91
CD33
CD04
CA39

(CONDUCTOR SIDE)

10-13. EIS


ICE12
CE33
RE25
CE32
CE45
RE03
RE02
CE12
CE36
CNE02
CE38

(COMPONENT SIDE)



(CONDUCTOR SIDE)

Memo

11. BLOCK DIAGRAMS

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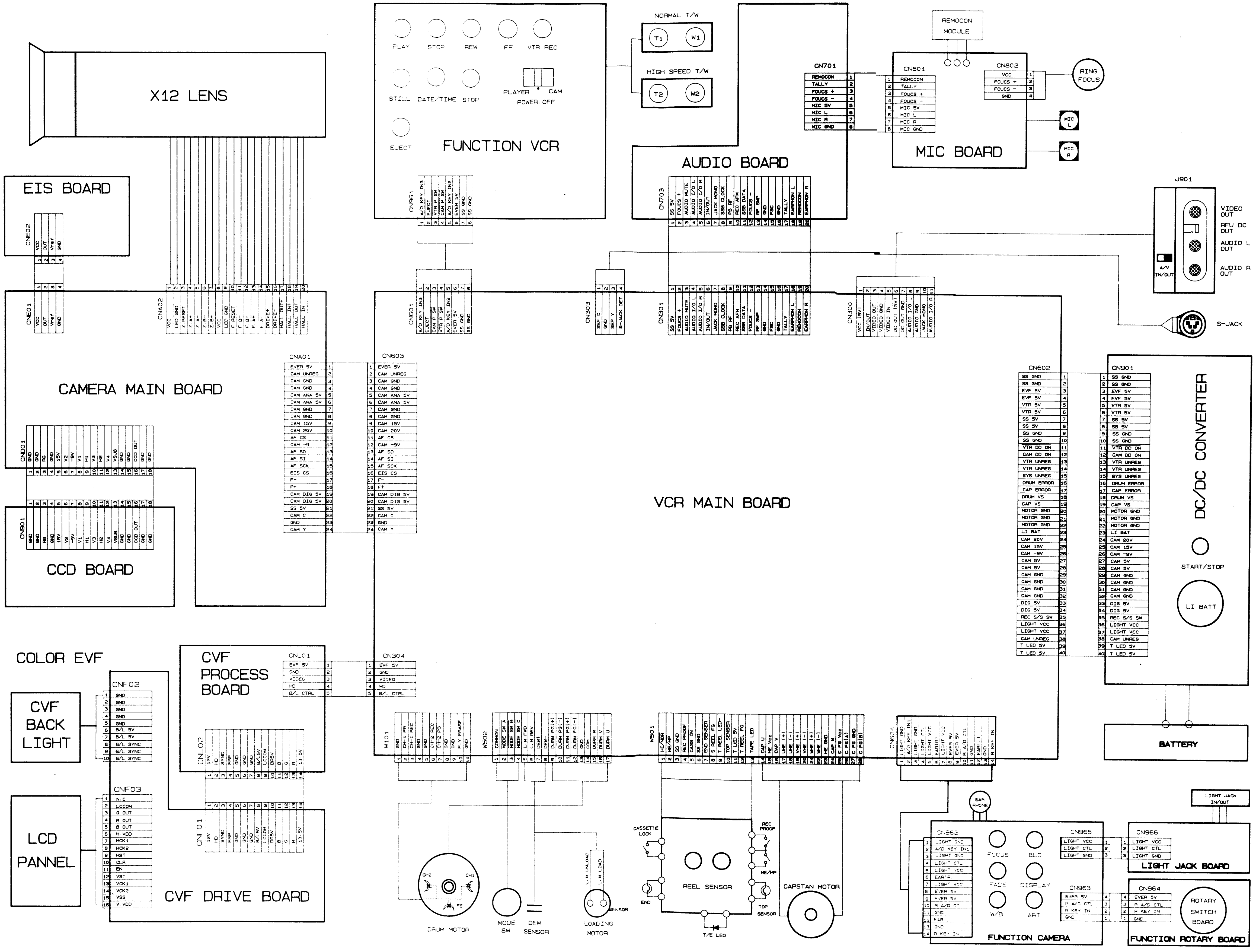
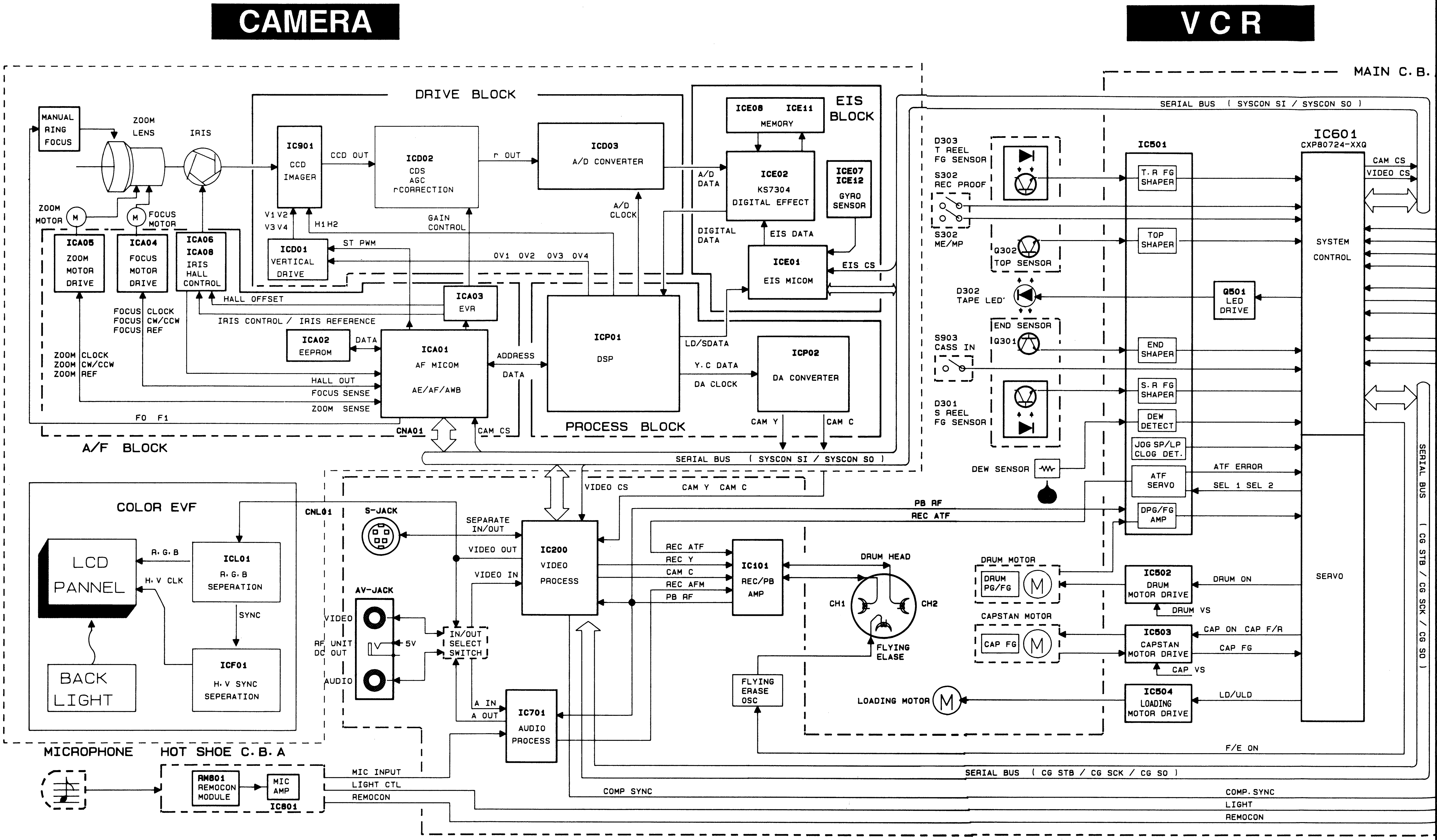
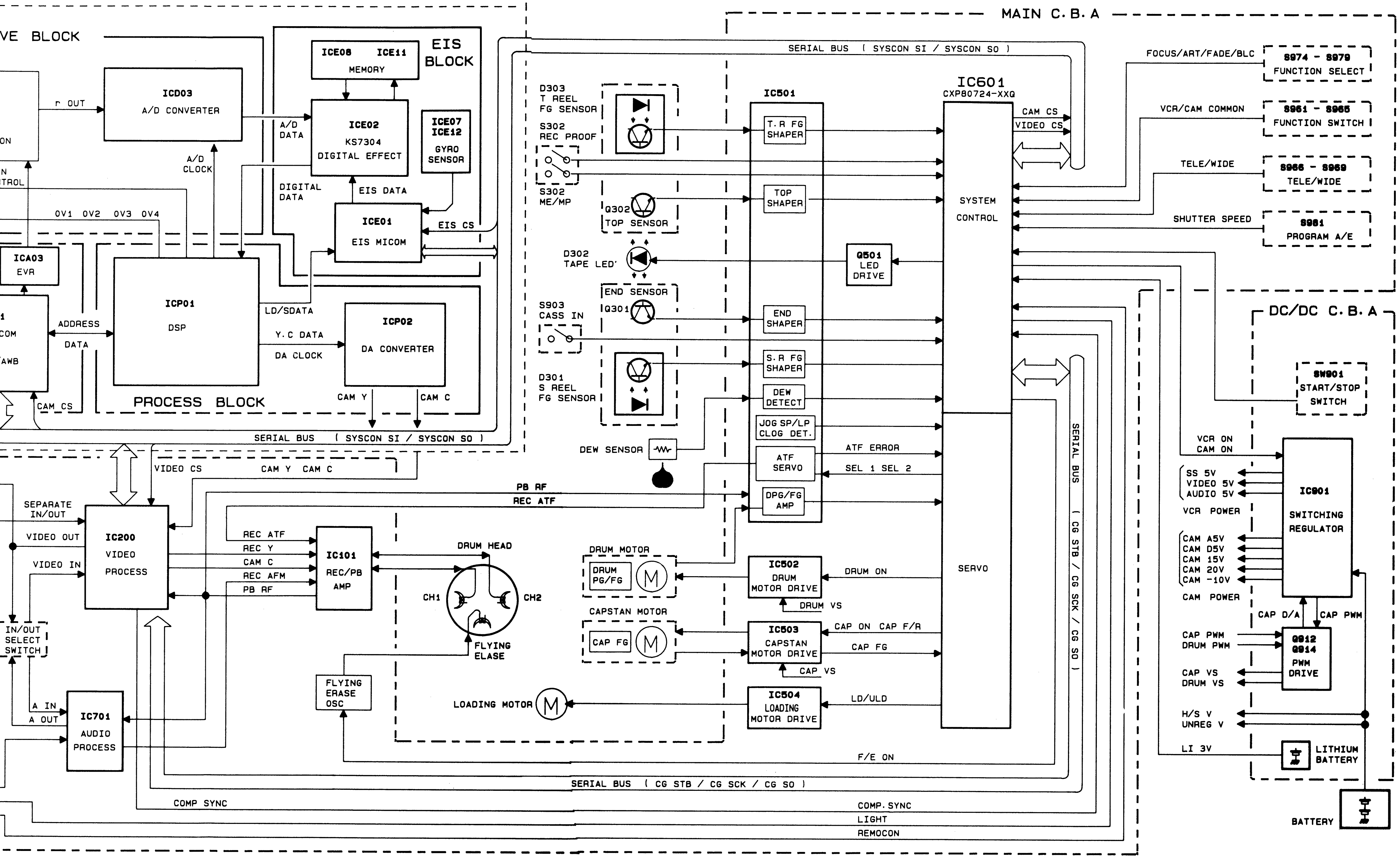
11-1. TOTAL WIRING DIAGRAM


X12 LENS
EIS BOARD
CNE02
CNE01
CNA02
CAMERA MAIN BOARD
CNA01
CND01
CN901
CCD BOARD
FUNCTION VCR
PLAY
STOP
REW
FF
VTR REC
STILL
DATE/TIME
STOP
PLAYER
CAM
POWER OFF
EJECT
CN951
CN501
CN603
NORMAL T/W
T1
W1
HIGH SPEED T/W
T2
W2
AUDIO BOARD
CN703
CN701
REMOCON MODULE
CN801
CN802
MIC BOARD
RING FOCUS
MIC L
MIC R
J901
VIDEO OUT
RFU DC OUT
AUDIO L OUT
AUDIO R OUT
A/V IN/OUT
S-JACK
CN303
CN301
CN300
VCR MAIN BOARD
CN602
CN901
DC/DC CONVERTER
START/STOP
LI BATT
BATTERY
COLOR EVF
CVF BACK LIGHT
CNF02
LCD PANNEL
CNF03
CVF PROCESS BOARD
CNL01
CNL02
CNF01
CVF DRIVE BOARD
CN304
W101
W502
W501
CN604
DRUM MOTOR
CH2
CH1
FE
MODE SW
DEW SENSOR
LOADING MOTOR
SENSOR
CASSETTE LOCK
END
REEL SENSOR
REC PROOF
ME/MP
TOP SENSOR
T/E LED
CAPSTAN MOTOR
EAR PHONE
CN962
FOCUS
BLC
FADE
DISPLAY
W/B
ART
CN965
CN963
FUNCTION CAMERA
CN966
LIGHT JACK IN/OUT
LIGHT JACK BOARD
CN964
ROTARY SWITCH BOARD
FUNCTION ROTARY BOARD

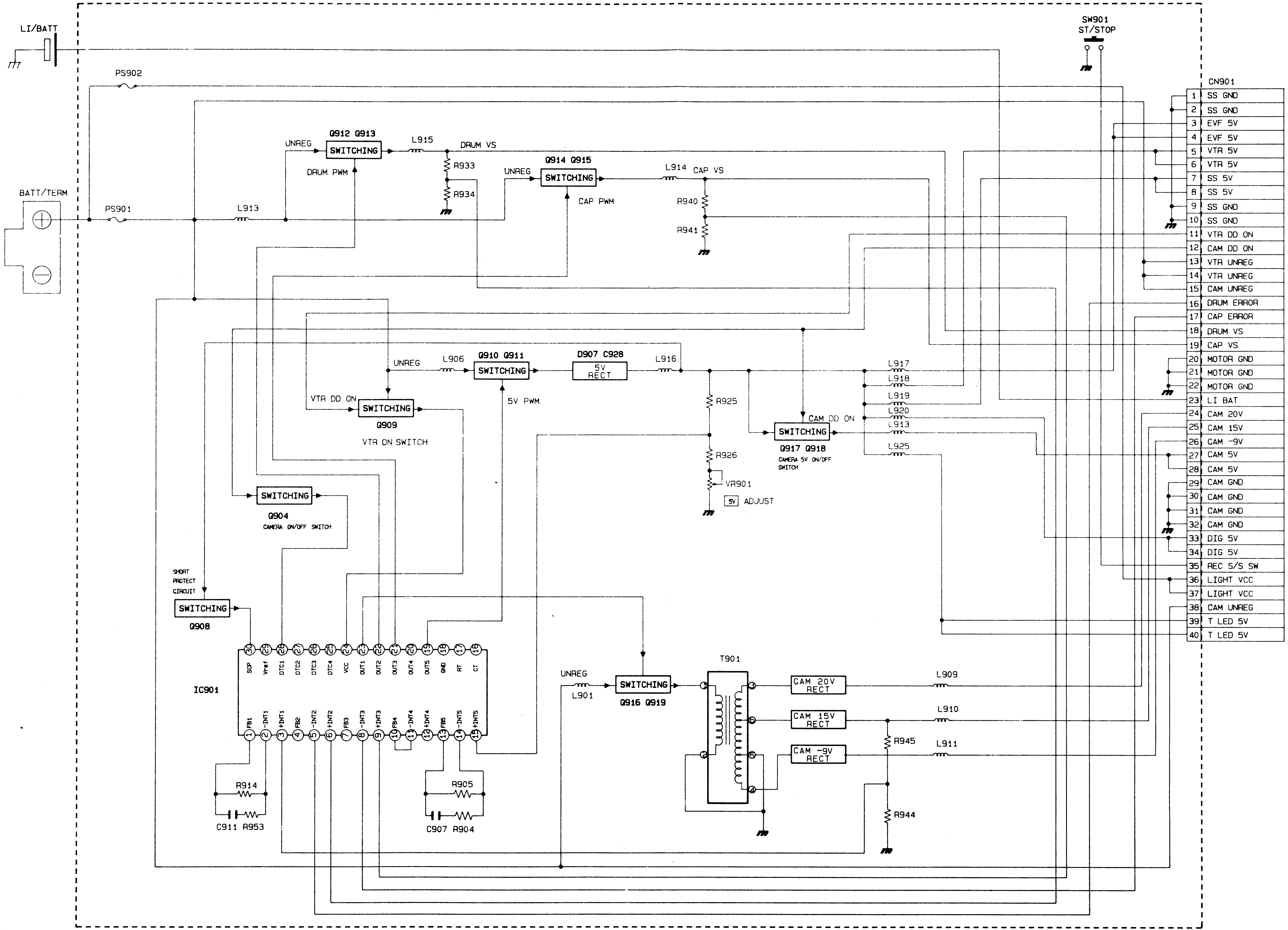
11-2. OVERALL BLOCK DIAGRAM


CAMERA
VCR
MAIN C.B.
DRIVE BLOCK
EIS BLOCK
MANUAL RING FOCUS
ZOOM LENS
IRIS
ZOOM MOTOR
FOCUS MOTOR
ICA05 ZOOM MOTOR DRIVE
ICA04 FOCUS MOTOR DRIVE
ICA06 ICA08 IRIS HALL CONTROL
IC901 CCD IMAGER
CCD OUT
ICD02 CDS AGC rCORRECTION
r OUT
ICD03 A/D CONVERTER
V1 V2
V3 V4
H1 H2
GAIN CONTROL
ICD01 VERTICAL DRIVE
ST PWM
OV1 OV2 OV3 OV4
ICE08 ICE11 MEMORY
ICE02 KS7304 DIGITAL EFFECT
ICE07 ICE12 GYRO SENSOR
A/D DATA
A/D CLOCK
DIGITAL DATA
EIS DATA
ICE01 EIS MICOM
EIS CS
HALL OFFSET
ICA03 EVR
IRIS CONTROL / IRIS REFERENCE
FOCUS CLOCK
FOCUS CW/CCW
FOCUS REF
ZOOM CLOCK
ZOOM CW/CCW
ZOOM REF
ICA02 EEPROM
DATA
ICA01 AF MICOM AE/AF/AWB
HALL OUT
FOCUS SENSE
ZOOM SENSE
FO F1
ADDRESS
DATA
ICP01 DSP
LD/SDATA
Y.C DATA
DA CLOCK
ICP02 DA CONVERTER
CAM Y
CAM C
PROCESS BLOCK
CNA01
CAM CS
A/F BLOCK
SERIAL BUS (SYSCON SI / SYSCON SO)
COLOR EVF
LCD PANNEL
R.G.B
H.V CLK
ICL01 R.G.B SEPERATION
SYNC
ICF01 H.V SYNC SEPERATION
BACK LIGHT
CNL01
S-JACK
SEPARATE IN/OUT
VIDEO OUT
VIDEO IN
VIDEO CS
CAM Y CAM C
IC200 VIDEO PROCESS
AV-JACK
VIDEO
RF UNIT DC OUT
5V
AUDIO
IN/OUT SELECT SWITCH
A IN
A OUT
IC701 AUDIO PROCESS
REC ATF
REC Y
CAM C
REC AFM
PB RF
IC101 REC/PB AMP
DRUM HEAD
CH1
CH2
FLYING ELASE
FLYING ERASE OSC
LOADING MOTOR
MICROPHONE
HOT SHOE C.B.A
RM801 REMOCON MODULE
MIC AMP
IC801
MIC INPUT
LIGHT CTL
REMOCON
COMP SYNC
SERIAL BUS (CG STB / CG SCK / CG SO)
F/E ON
D303 T REEL FG SENSOR
S302 REC PROOF
S302 ME/MP
Q302 TOP SENSOR
D302 TAPE LED
END SENSOR
Q301
S903 CASS IN
D301 S REEL FG SENSOR
DEW SENSOR
PB RF
REC ATF
DRUM MOTOR
DRUM PG/FG
CAPSTAN MOTOR
CAP FG
IC501
T.R FG SHAPER
TOP SHAPER
END SHAPER
S.R FG SHAPER
DEW DETECT
JOG SP/LP CLOG DET.
ATF SERVO
DPG/FG AMP
Q501 LED DRIVE
ATF ERROR
SEL 1 SEL 2
IC502 DRUM MOTOR DRIVE
DRUM ON
DRUM VS
IC503 CAPSTAN MOTOR DRIVE
CAP ON CAP F/R
CAP FG
CAP VS
IC504 LOADING MOTOR DRIVE
LD/ULD
IC601 CXP80724-XXQ
CAM CS
VIDEO CS
SYSTEM CONTROL
SERVO
SERIAL BUS (CG STB / CG SCK / CG SO)
COMP. SYNC
LIGHT
REMOCON

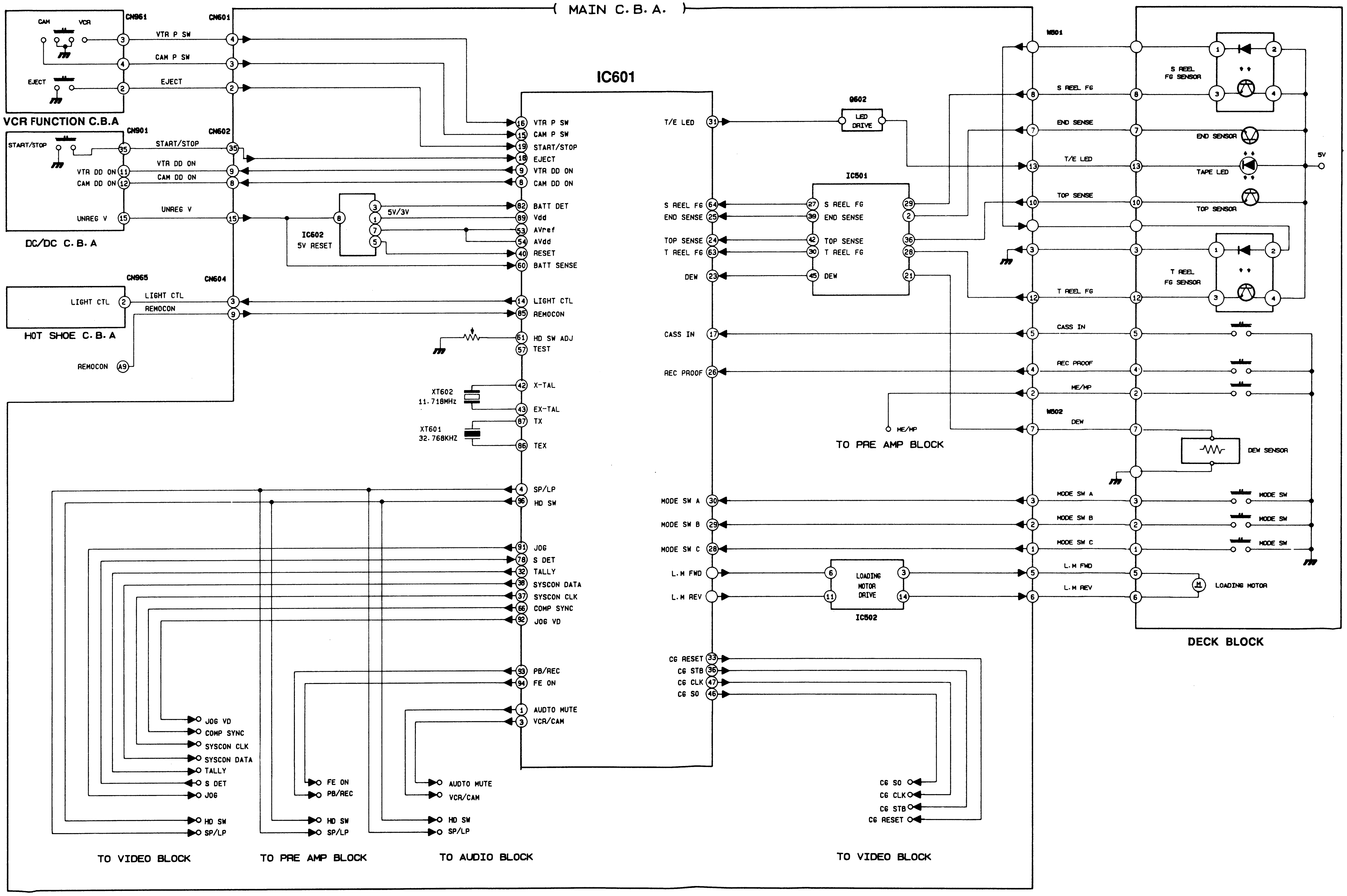
VCR


VE BLOCK
r OUT
ON
N
TROL
ICD03
A/D CONVERTER
A/D DATA
A/D CLOCK
ICE08
ICE11
MEMORY
EIS BLOCK
ICE02
KS7304
DIGITAL EFFECT
ICE07
ICE12
GYRO SENSOR
DIGITAL DATA
EIS DATA
ICE01
EIS MICOM
EIS CS
OV1 OV2 OV3 OV4
ICA03
EVR
COM
AWB
ADDRESS
DATA
ICP01
DSP
LD/SDATA
Y.C DATA
DA CLOCK
ICP02
DA CONVERTER
CAM Y
CAM C
CAM CS
PROCESS BLOCK
SERIAL BUS (SYSCON SI / SYSCON SO)
VIDEO CS
CAM Y CAM C
SEPARATE IN/OUT
VIDEO OUT
VIDEO IN
IC200
VIDEO PROCESS
IN/OUT SELECT SWITCH
A IN
A OUT
IC701
AUDIO PROCESS
PB RF
REC ATF
REC ATF
REC Y
CAM C
REC AFM
PB RF
IC101
REC/PB AMP
DRUM HEAD
CH1
CH2
FLYING ELASE
FLYING ERASE OSC
LOADING MOTOR
MAIN C.B.A
D303
T REEL FG SENSOR
S302
REC PROOF
S302
ME/MP
Q302
TOP SENSOR
D302
TAPE LED
END SENSOR
Q301
S903
CASS IN
D301
S REEL FG SENSOR
DEW SENSOR
IC501
T.R FG SHAPER
TOP SHAPER
Q501
LED DRIVE
END SHAPER
S.R FG SHAPER
DEW DETECT
JOG SP/LP
CLOG DET.
ATF SERVO
DPG/FG AMP
ATF ERROR
SEL 1 SEL 2
IC601
CXP80724-XXQ
CAM CS
VIDEO CS
SYSTEM CONTROL
SERVO
DRUM MOTOR
DRUM PG/FG
M
CAPSTAN MOTOR
CAP FG
M
IC502
DRUM MOTOR DRIVE
DRUM ON
DRUM VS
IC503
CAPSTAN MOTOR DRIVE
CAP ON CAP F/R
CAP FG
CAP VS
IC504
LOADING MOTOR DRIVE
LD/ULD
F/E ON
SERIAL BUS (CG STB / CG SCK / CG SO)
SERIAL BUS (CG STB / CG SCK / CG SO)
COMP SYNC
COMP. SYNC
LIGHT
REMOCON
FOCUS/ART/FADE/BLC
S974 - S979
FUNCTION SELECT
VCR/CAM COMMON
S961 - S965
FUNCTION SWITCH
TELE/WIDE
S966 - S969
TELE/WIDE
SHUTTER SPEED
S981
PROGRAM A/E
DC/DC C.B.A
SW901
START/STOP SWITCH
VCR ON
CAM ON
SS 5V
VIDEO 5V
AUDIO 5V
VCR POWER
IC901
SWITCHING REGULATOR
CAM A5V
CAM D5V
CAM 15V
CAM 20V
CAM -10V
CAM POWER
CAP D/A
CAP PWM
CAP PWM
DRUM PWM
Q912
Q914
PWM DRIVE
CAP VS
DRUM VS
H/S V
UNREG V
LI 3V
LITHIUM BATTERY
BATTERY

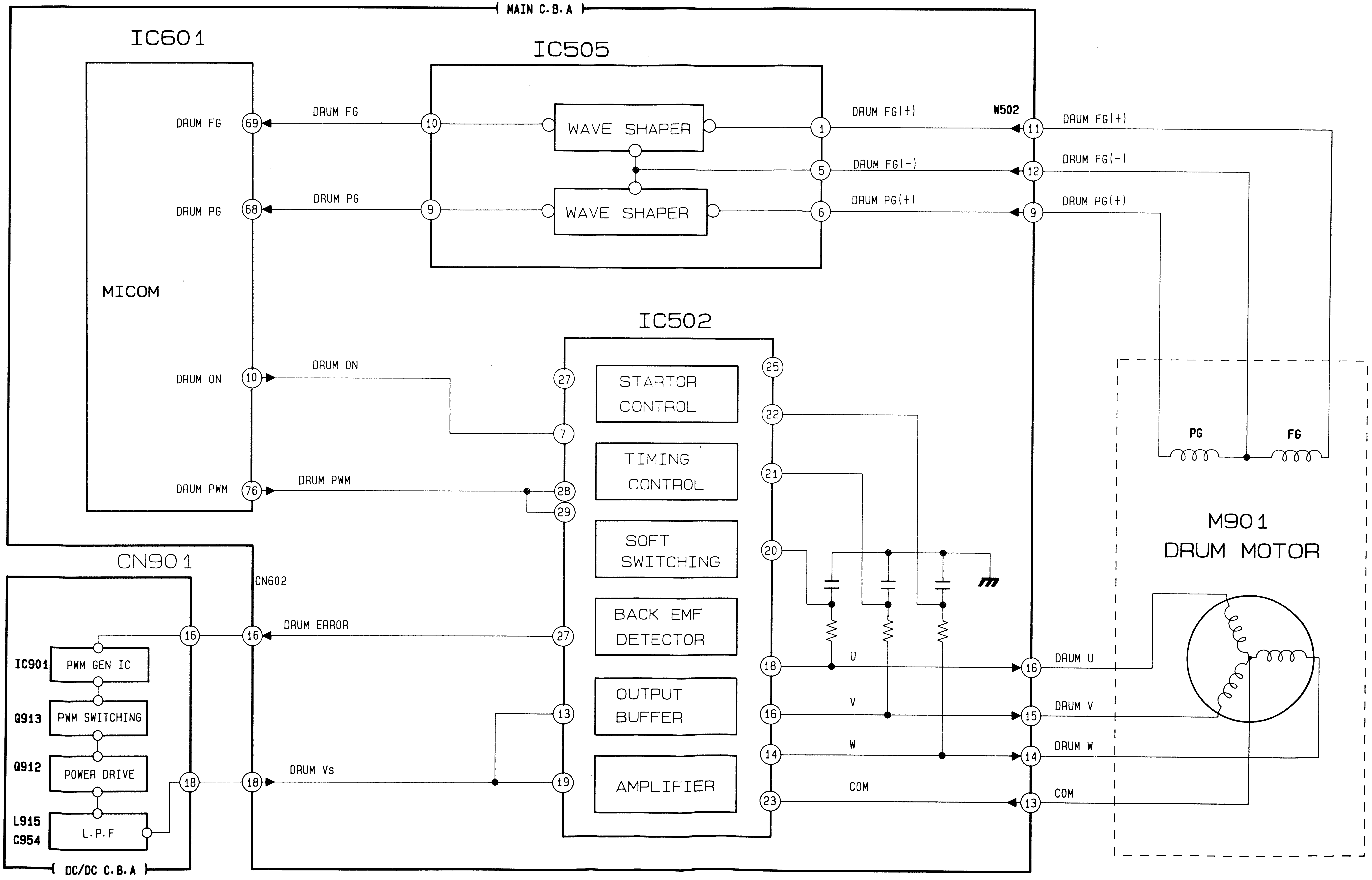
11-3. DC/DC CONVERTER


LI/BATT
PS902
BATT/TERM
PS901
L913
UNREG
Q912 Q913
SWITCHING
DRUM PWM
L915
DRUM VS
R933
R934
UNREG
Q914 Q915
SWITCHING
CAP PWM
L914
CAP VS
R940
R941
SW901
ST/STOP
CN901
1 SS GND
2 SS GND
3 EVF 5V
4 EVF 5V
5 VTR 5V
6 VTR 5V
7 SS 5V
8 SS 5V
9 SS GND
10 SS GND
11 VTR DD ON
12 CAM DD ON
13 VTR UNREG
14 VTR UNREG
15 CAM UNREG
16 DRUM ERROR
17 CAP ERROR
18 DRUM VS
19 CAP VS
20 MOTOR GND
21 MOTOR GND
22 MOTOR GND
23 LI BAT
24 CAM 20V
25 CAM 15V
26 CAM -9V
27 CAM 5V
28 CAM 5V
29 CAM GND
30 CAM GND
31 CAM GND
32 CAM GND
33 DIG 5V
34 DIG 5V
35 REC S/S SW
36 LIGHT VCC
37 LIGHT VCC
38 CAM UNREG
39 T LED 5V
40 T LED 5V
UNREG
L906
Q910 Q911
SWITCHING
D907 C928
5V RECT
L916
5V PWM
VTR DD ON
SWITCHING
Q909
VTR ON SWITCH
R925
R926
VR901
5V ADJUST
CAM DD ON
SWITCHING
Q917 Q918
CAMERA 5V ON/OFF SWITCH
L917
L918
L919
L920
L913
L925
SWITCHING
Q904
CAMERA ON/OFF SWITCH
SHORT PROTECT CIRCUIT
SWITCHING
Q908
IC901
30 SCP
29 Vref
28 DTC1
27 DTC2
26 DTC3
25 DTC4
24 VCC
23 OUT1
22 OUT2
21 OUT3
20 OUT4
19 OUT5
18 GND
17 RT
16 CT
1 FB1
2 -INT1
3 +INT1
4 FB2
5 -INT2
6 +INT2
7 FB3
8 -INT3
9 +INT3
10 FB4
11 -INT4
12 +INT4
13 FB5
14 -INT5
15 +INT5
R914
C911 R953
R905
C907 R904
UNREG
L901
SWITCHING
Q916 Q919
T901
CAM 20V RECT
CAM 15V RECT
CAM -9V RECT
L909
L910
L911
R945
R944

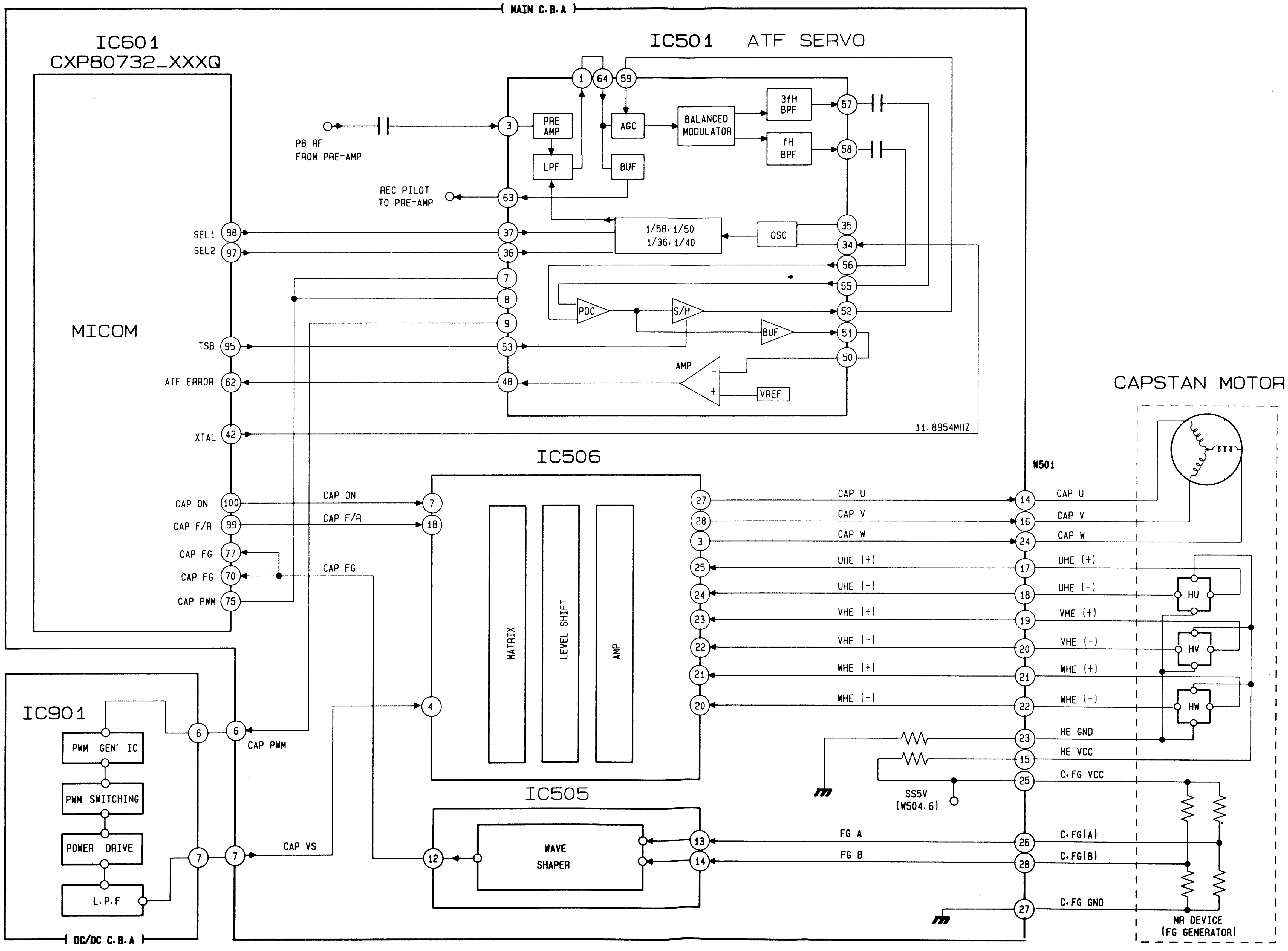
11-4. SYSTEM COTROL


MAIN C.B.A.
IC601
VCR FUNCTION C.B.A
CN961
CN601
CAM
VCR
EJECT
VTR P SW
CAM P SW
EJECT
CN901
CN602
START/STOP
VTR DD ON
CAM DD ON
UNREG V
DC/DC C.B.A
IC602
5V RESET
5V/3V
CN965
CN604
LIGHT CTL
REMOCON
HOT SHOE C.B.A
REMOCON
VTR P SW
CAM P SW
START/STOP
EJECT
VTR DD ON
CAM DD ON
BATT DET
Vdd
AVref
AVdd
RESET
BATT SENSE
LIGHT CTL
REMOCON
HD SW ADJ
TEST
X-TAL
EX-TAL
TX
TEX
XT602
11.718MHz
XT601
32.768KHZ
SP/LP
HD SW
JOG
S DET
TALLY
SYSCON DATA
SYSCON CLK
COMP SYNC
JOG VD
PB/REC
FE ON
AUDTO MUTE
VCR/CAM
T/E LED
S REEL FG
END SENSE
TOP SENSE
T REEL FG
DEW
CASS IN
REC PROOF
MODE SW A
MODE SW B
MODE SW C
L.M FWD
L.M REV
CG RESET
CG STB
CG CLK
CG SO
Q602
LED DRIVE
IC501
S REEL FG
END SENSE
TOP SENSE
T REEL FG
DEW
LOADING MOTOR DRIVE
IC502
ME/MP
TO PRE AMP BLOCK
W801
W802
S REEL FG
END SENSE
T/E LED
TOP SENSE
T REEL FG
CASS IN
REC PROOF
ME/MP
DEW
MODE SW A
MODE SW B
MODE SW C
L.M FWD
L.M REV
S REEL FG SENSOR
END SENSOR
TAPE LED
TOP SENSOR
T REEL FG SENSOR
5V
DEW SENSOR
MODE SW
MODE SW
MODE SW
LOADING MOTOR
DECK BLOCK
JOG VD
COMP SYNC
SYSCON CLK
SYSCON DATA
TALLY
S DET
JOG
HD SW
SP/LP
TO VIDEO BLOCK
FE ON
PB/REC
HD SW
SP/LP
TO PRE AMP BLOCK
AUDTO MUTE
VCR/CAM
HD SW
SP/LP
TO AUDIO BLOCK
CG SO
CG CLK
CG STB
CG RESET
TO VIDEO BLOCK

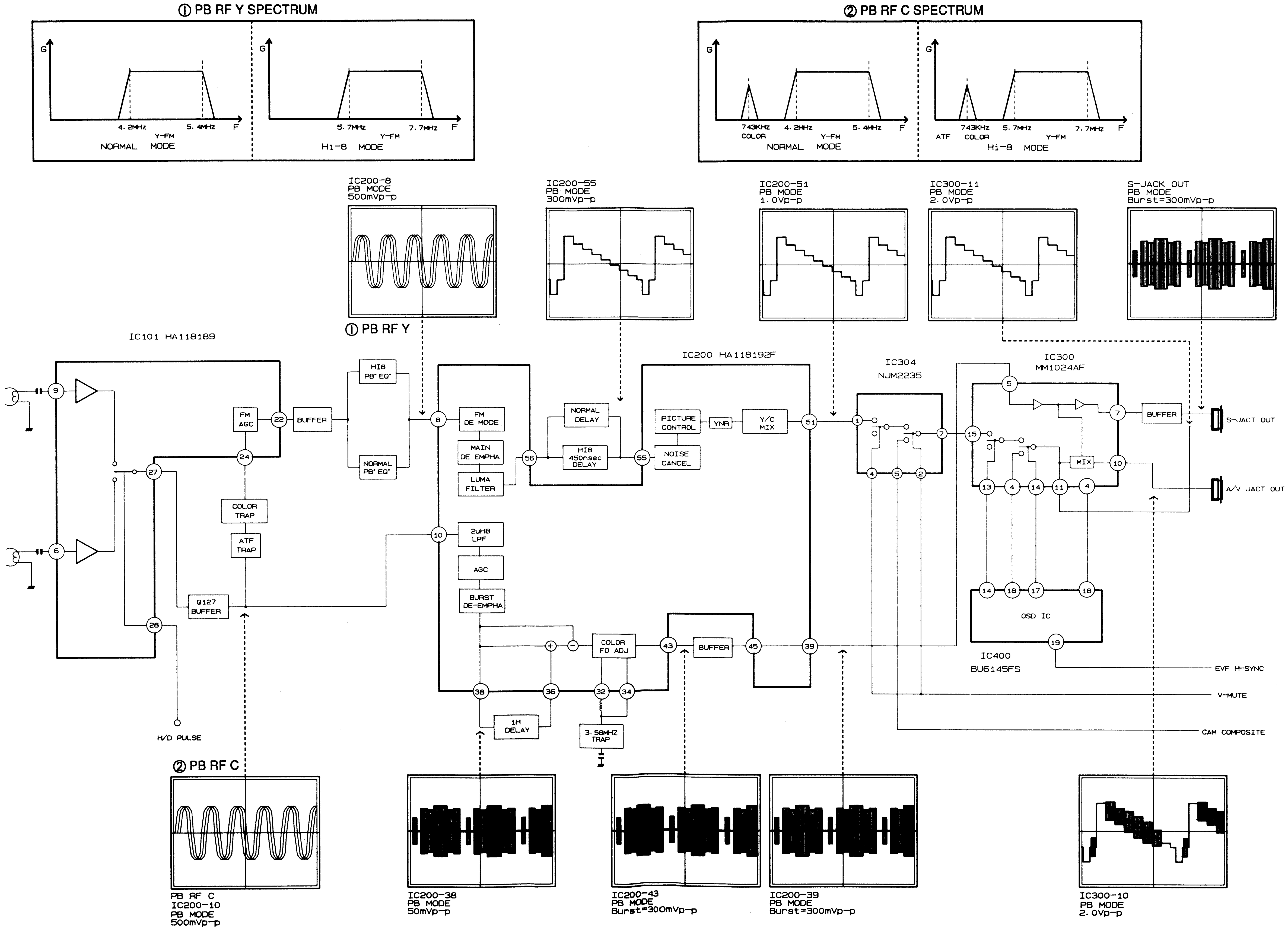
11-5. DRUM SERVO


MAIN C.B.A
IC601
MICOM
DRUM FG
69
DRUM PG
68
DRUM ON
10
DRUM PWM
76
IC505
10
9
WAVE SHAPER
WAVE SHAPER
1
5
6
DRUM FG(+)
DRUM FG(-)
DRUM PG(+)
W502
11
12
9
DRUM FG(+)
DRUM FG(-)
DRUM PG(+)
PG
FG
M901
DRUM MOTOR
IC502
STARTOR
CONTROL
TIMING
CONTROL
SOFT
SWITCHING
BACK EMF
DETECTOR
OUTPUT
BUFFER
AMPLIFIER
27
7
28
29
27
13
19
25
22
21
20
18
16
14
23
U
V
W
COM
16
15
14
13
DRUM U
DRUM V
DRUM W
COM
CN901
CN602
16
16
DRUM ERROR
18
18
DRUM Vs
IC901
PWM GEN IC
Q913
PWM SWITCHING
Q912
POWER DRIVE
L915
C954
L.P.F
DC/DC C.B.A

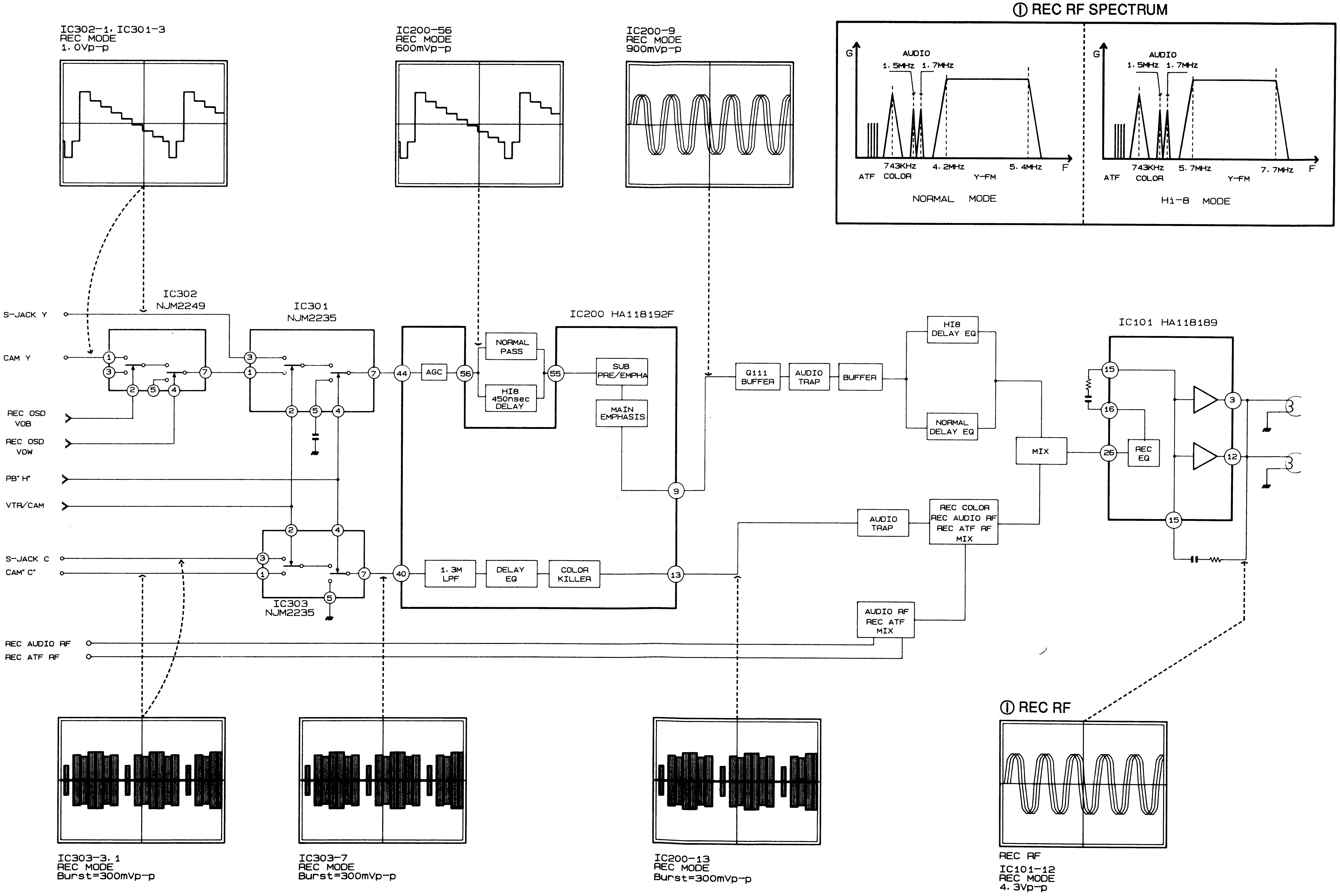
11-6. CAPSTAN SERVO


MAIN C.B.A
IC601
CXP80732_XXXQ
MICOM
IC501 ATF SERVO
PB RF
FROM PRE-AMP
REC PILOT
TO PRE-AMP
PRE AMP
LPF
AGC
BUF
BALANCED MODULATOR
3fH BPF
fH BPF
1/58, 1/50
1/36, 1/40
OSC
PDC
S/H
BUF
AMP
VREF
11.8954MHZ
SEL1
SEL2
TSB
ATF ERROR
XTAL
CAP ON
CAP F/R
CAP FG
CAP FG
CAP PWM
IC506
MATRIX
LEVEL SHIFT
AMP
IC505
WAVE SHAPER
CAP VS
IC901
PWM GEN' IC
PWM SWITCHING
POWER DRIVE
L.P.F
DC/DC C.B.A
W501
CAP U
CAP V
CAP W
UHE (+)
UHE (-)
VHE (+)
VHE (-)
WHE (+)
WHE (-)
HE GND
HE VCC
C.FG VCC
SS5V
(W504.6)
FG A
FG B
C.FG(A)
C.FG(B)
C.FG GND
CAPSTAN MOTOR
HU
HV
HW
MR DEVICE
(FG GENERATOR)

11-7. VIDEO PLAYBACK

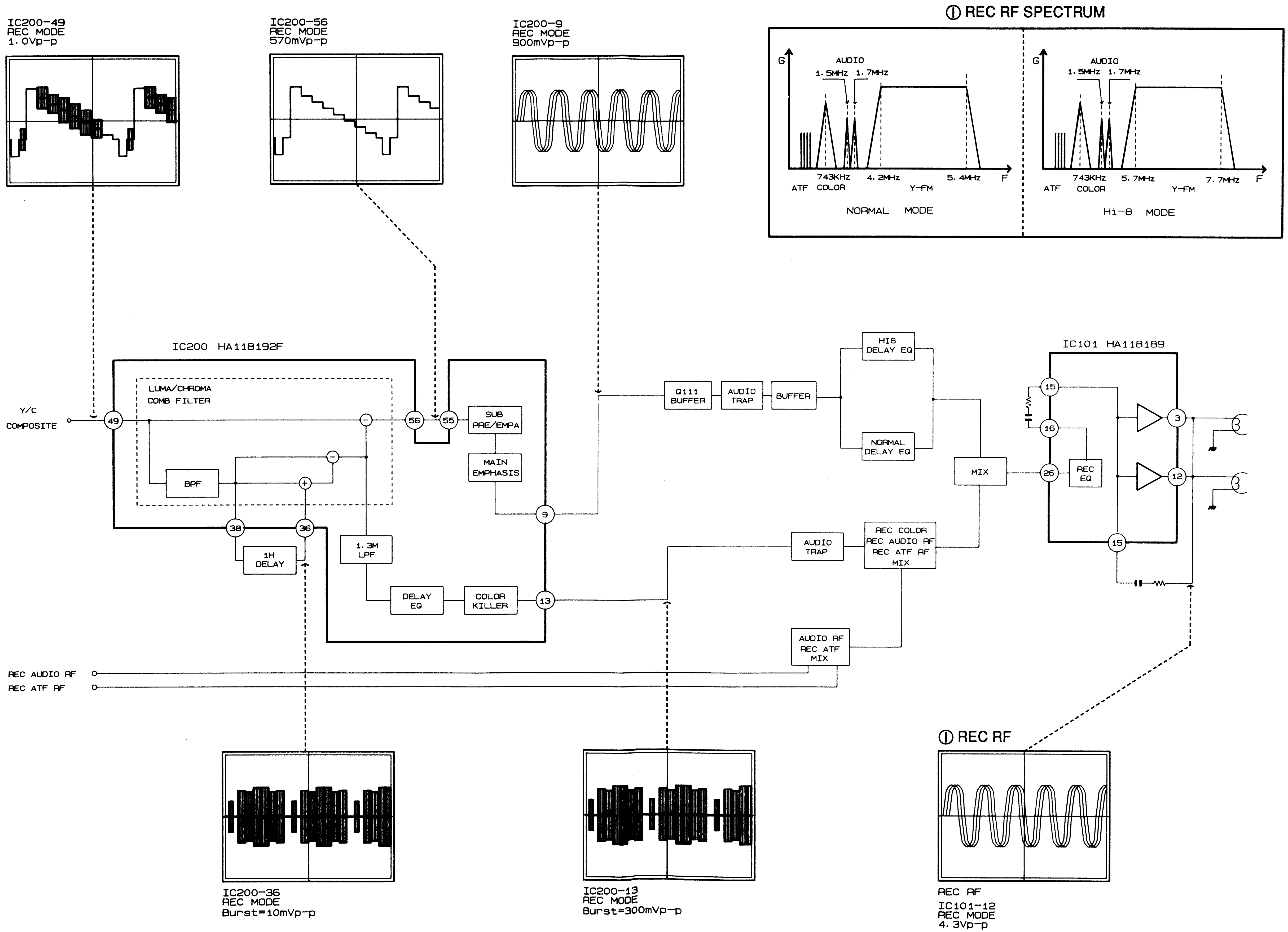

① PB RF Y SPECTRUM
G
4. 2MHz
5. 4MHz
F
Y-FM
NORMAL MODE
5. 7MHz
7. 7MHz
Hi-8 MODE
② PB RF C SPECTRUM
743KHz
COLOR
ATF
IC200-8
PB MODE
500mVp-p
① PB RF Y
IC200-55
PB MODE
300mVp-p
IC200-51
PB MODE
1. 0Vp-p
IC300-11
PB MODE
2. 0Vp-p
S-JACK OUT
PB MODE
Burst=300mVp-p
IC101 HA118189
9
6
FM AGC
22
24
27
28
BUFFER
HI8 PB' EQ'
NORMAL PB' EQ'
COLOR TRAP
ATF TRAP
Q127 BUFFER
H/D PULSE
IC200 HA118192F
8
FM DE MODE
MAIN DE EMPHA
LUMA FILTER
56
NORMAL DELAY
HI8 450nsec DELAY
55
PICTURE CONTROL
YNR
Y/C MIX
NOISE CANCEL
51
10
2uH8 LPF
AGC
BURST DE-EMPHA
COLOR FO ADJ
43
45
39
38
36
32
34
1H DELAY
3. 58MHZ TRAP
IC304
NJM2235
1
7
4
5
2
IC300
MM1024AF
5
15
7
MIX
10
13
4
14
11
BUFFER
S-JACT OUT
A/V JACT OUT
14
18
17
OSD IC
19
IC400
BU6145FS
EVF H-SYNC
V-MUTE
CAM COMPOSITE
② PB RF C
PB RF C
IC200-10
PB MODE
500mVp-p
IC200-38
PB MODE
50mVp-p
IC200-43
PB MODE
Burst=300mVp-p
IC200-39
PB MODE
Burst=300mVp-p
IC300-10
PB MODE
2. 0Vp-p

11-8. VIDEO RECORD (Y/C SEPARATE)

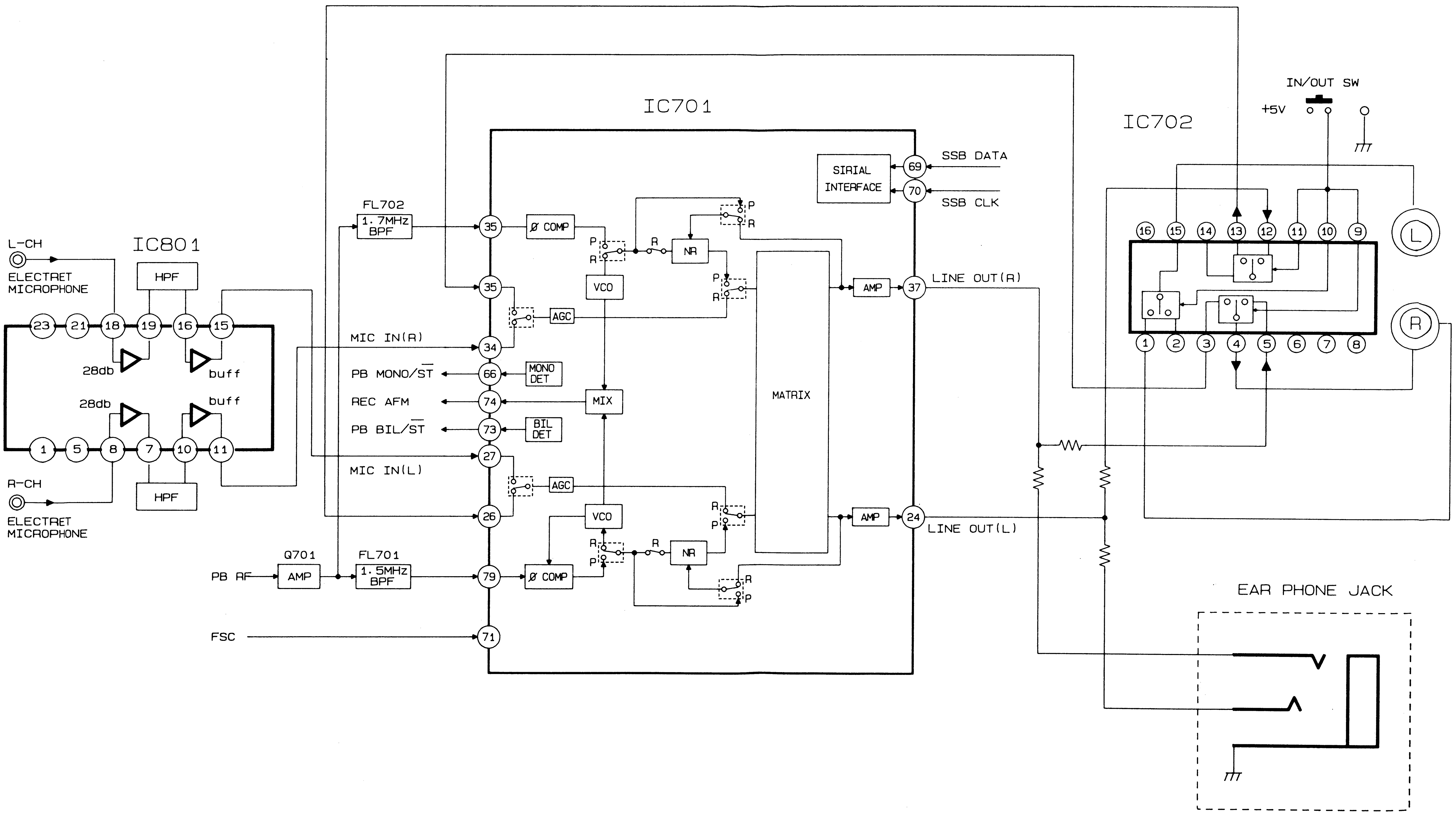


① REC RF SPECTRUM
G
AUDIO
1. 5MHz 1. 7MHz
743KHz 4. 2MHz 5. 4MHz F
ATF COLOR Y-FM
NORMAL MODE
743KHz 5. 7MHz 7. 7MHz F
ATF COLOR Y-FM
Hi-8 MODE
IC302-1. IC301-3
REC MODE
1. 0Vp-p
IC200-56
REC MODE
600mVp-p
IC200-9
REC MODE
900mVp-p
IC302
NJM2249
IC301
NJM2235
IC200 HA118192F
IC101 HA118189
S-JACK Y
CAM Y
REC OSD VOB
REC OSD VOW
PB' H'
VTR/CAM
S-JACK C
CAM' C'
REC AUDIO RF
REC ATF RF
IC303
NJM2235
AGC
NORMAL PASS
HI8 450nsec DELAY
SUB PRE/EMPHA
MAIN EMPHASIS
1. 3M LPF
DELAY EQ
COLOR KILLER
Q111 BUFFER
AUDIO TRAP
BUFFER
HI8 DELAY EQ
NORMAL DELAY EQ
MIX
REC EQ
AUDIO TRAP
REC COLOR
REC AUDIO RF
REC ATF RF
MIX
AUDIO RF
REC ATF
MIX
① REC RF
IC303-3. 1
REC MODE
Burst=300mVp-p
IC303-7
REC MODE
Burst=300mVp-p
IC200-13
REC MODE
Burst=300mVp-p
REC RF
IC101-12
REC MODE
4. 3Vp-p

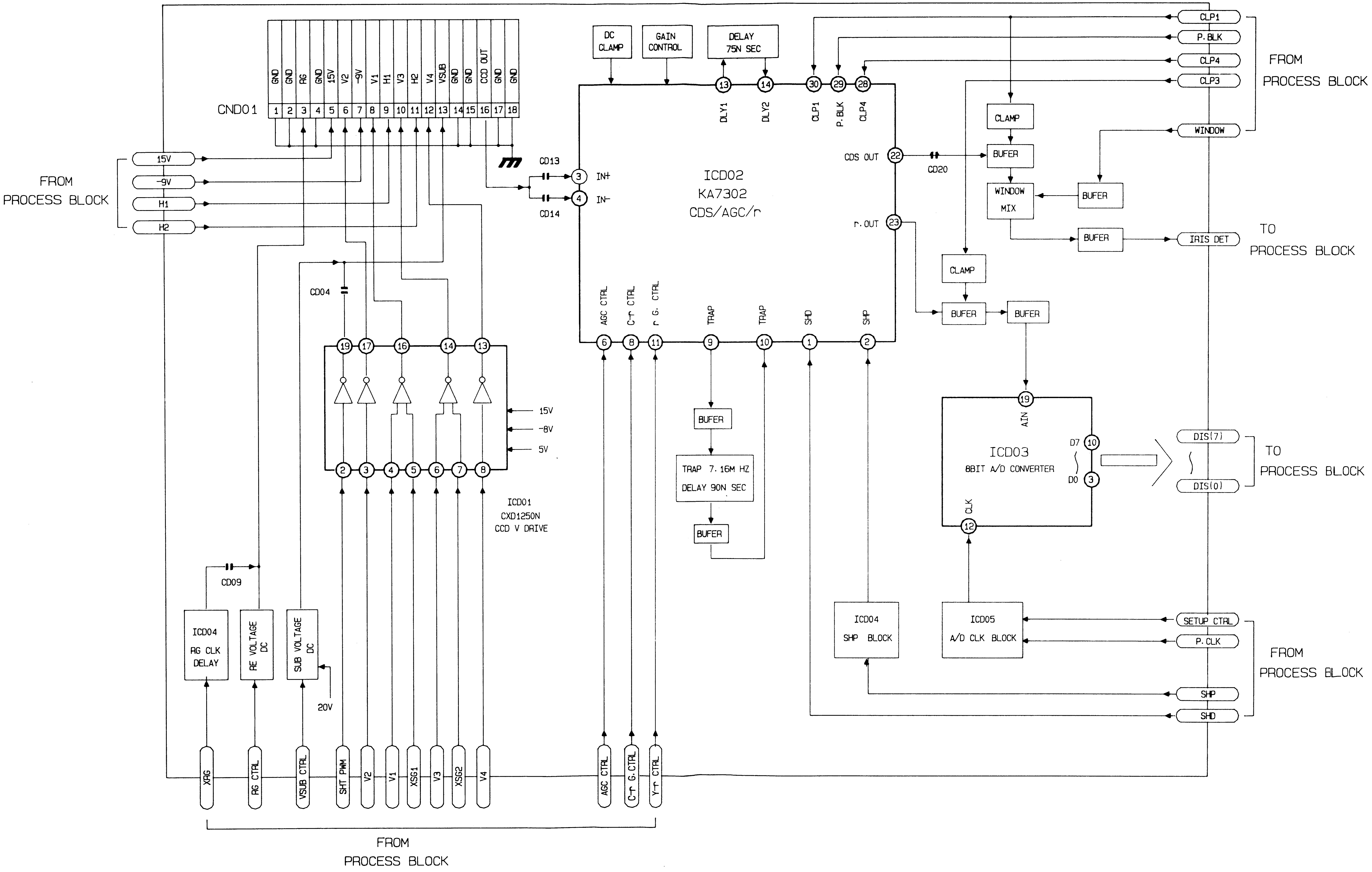
11-9. VIDEO RECORD (COMPOSITE INPUT)


IC200-49
REC MODE
1.0Vp-p
IC200-56
REC MODE
570mVp-p
IC200-9
REC MODE
900mVp-p
① REC RF SPECTRUM
G
AUDIO
1.5MHz 1.7MHz
743KHz
4.2MHz
5.4MHz
F
ATF
COLOR
Y-FM
NORMAL MODE
G
AUDIO
1.5MHz 1.7MHz
743KHz
5.7MHz
7.7MHz
F
ATF
COLOR
Y-FM
Hi-8 MODE
IC200 HA118192F
LUMA/CHROMA
COMB FILTER
Y/C
COMPOSITE
49
BPF
56
55
SUB
PRE/EMPA
MAIN
EMPHASIS
9
38
36
1H
DELAY
1.3M
LPF
DELAY
EQ
COLOR
KILLER
13
Q111
BUFFER
AUDIO
TRAP
BUFFER
HI8
DELAY EQ
NORMAL
DELAY EQ
MIX
AUDIO
TRAP
REC COLOR
REC AUDIO RF
REC ATF RF
MIX
AUDIO RF
REC ATF
MIX
REC AUDIO RF
REC ATF RF
IC101 HA118189
15
16
26
REC
EQ
3
12
15
IC200-36
REC MODE
Burst=10mVp-p
IC200-13
REC MODE
Burst=300mVp-p
① REC RF
REC RF
IC101-12
REC MODE
4.3Vp-p

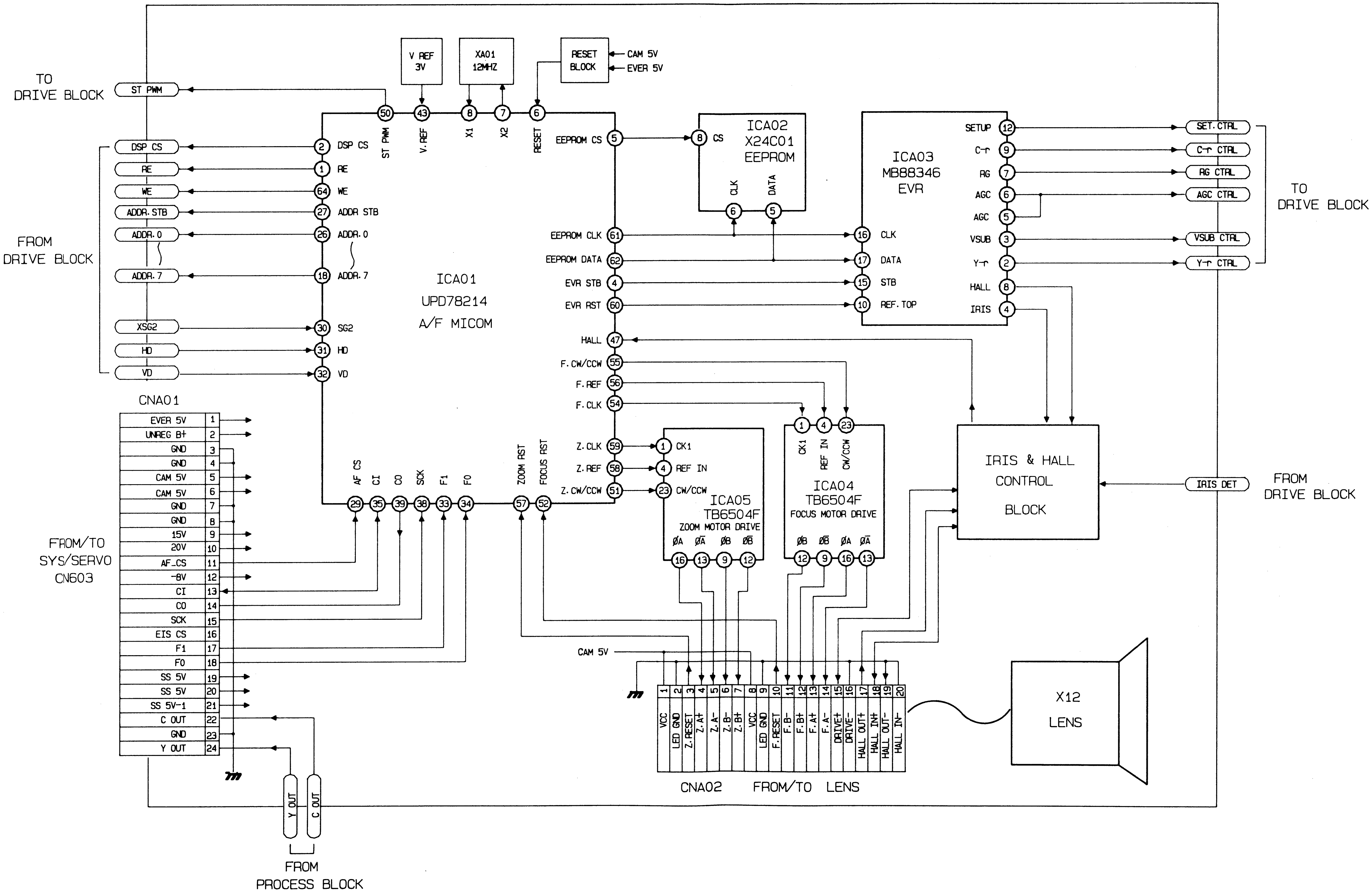
11-10. AUDIO


IC701
IC702
IC801
L-CH
ELECTRET MICROPHONE
R-CH
ELECTRET MICROPHONE
HPF
HPF
28db
buff
28db
buff
23
21
18
19
16
15
1
5
8
7
10
11
FL702
1.7MHz BPF
FL701
1.5MHz BPF
Q701
AMP
PB RF
FSC
MIC IN(R)
PB MONO/ST
REC AFM
PB BIL/ST
MIC IN(L)
35
35
34
66
74
73
27
26
79
71
Ø COMP
Ø COMP
AGC
AGC
VCO
VCO
MIX
MONO DET
BIL DET
NR
NR
P
R
MATRIX
SIRIAL INTERFACE
69
70
SSB DATA
SSB CLK
AMP
AMP
37
24
LINE OUT(R)
LINE OUT(L)
IN/OUT SW
+5V
16
15
14
13
12
11
10
9
1
2
3
4
5
6
7
8
L
R
EAR PHONE JACK

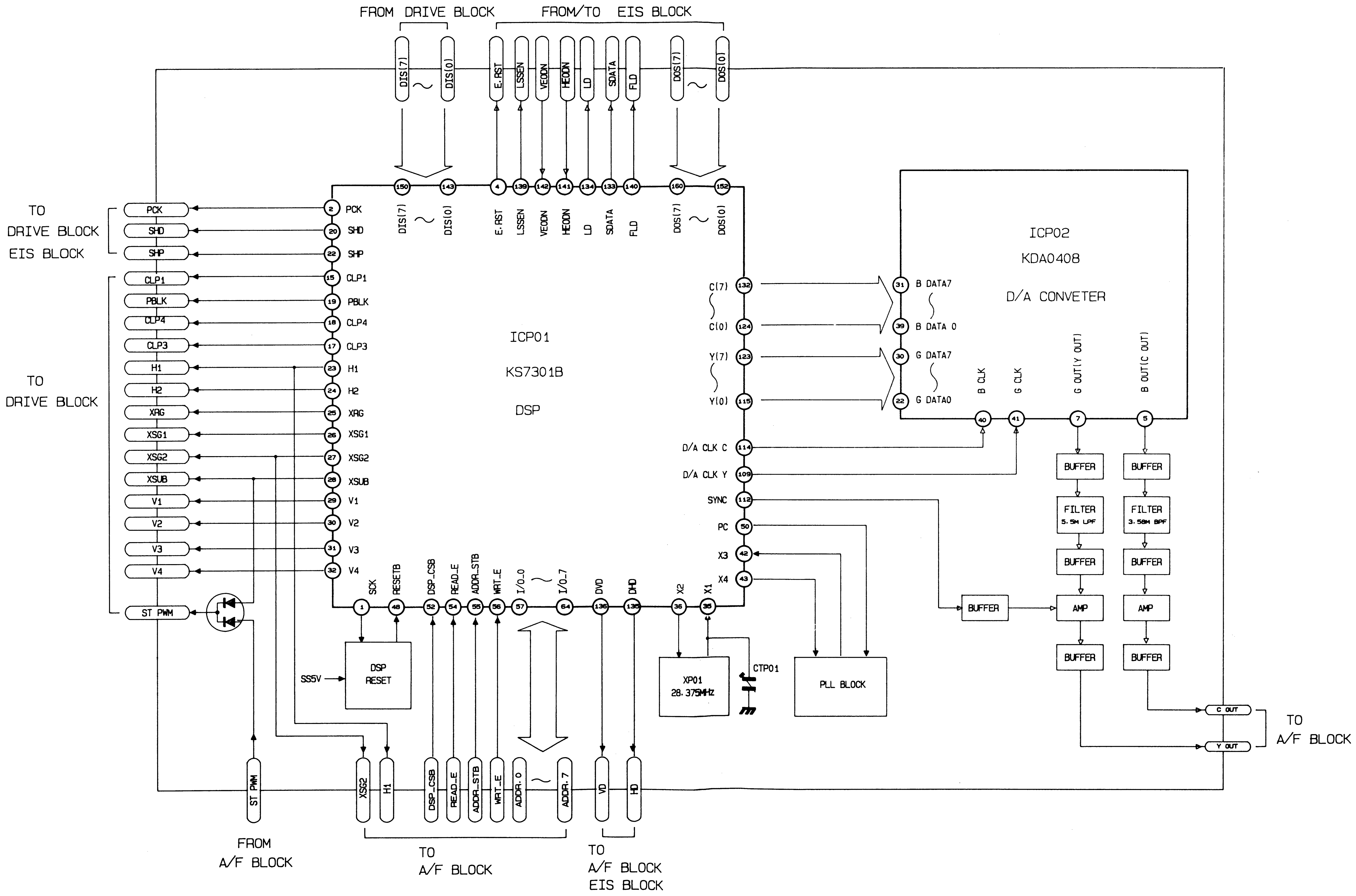
11-11. DRIVE


CND01
GND
GND
RG
GND
15V
V2
-9V
V1
H1
V3
H2
V4
VSUB
GND
GND
CCD OUT
GND
GND
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
15V
-9V
H1
H2
FROM
PROCESS BLOCK
CD13
CD14
CD04
19 17 16 14 13
15V
-8V
5V
2 3 4 5 6 7 8
ICD01
CXD1250N
CCD V DRIVE
CD09
ICD04
RG CLK
DELAY
RE VOLTAGE
DC
SUB VOLTAGE
DC
20V
XRG
RG CTRL
VSUB CTRL
SHT PWM
V2
V1
XSG1
V3
XSG2
V4
AGC CTRL
C-r G.CTRL
Y-r CTRL
FROM
PROCESS BLOCK
DC
CLAMP
GAIN
CONTROL
DELAY
75N SEC
13 14 30 29 28
DLY1
DLY2
CLP1
P.BLK
CLP4
3 IN+
4 IN-
ICD02
KA7302
CDS/AGC/r
CDS OUT 22
r.OUT 23
AGC CTRL
C-r CTRL
r G. CTRL
TRAP
TRAP
SHD
SHP
6 8 11 9 10 1 2
BUFER
TRAP 7.16M HZ
DELAY 90N SEC
BUFER
CD20
CLAMP
BUFER
WINDOW
MIX
BUFER
BUFER
CLAMP
BUFER
BUFER
CLP1
P.BLK
CLP4
CLP3
WINDOW
FROM
PROCESS BLOCK
IRIS DET
TO
PROCESS BLOCK
19
AIN
ICD03
8BIT A/D CONVERTER
D7 10
D0 3
CLK
12
DIS(7)
DIS(0)
TO
PROCESS BLOCK
ICD04
SHP BLOCK
ICD05
A/D CLK BLOCK
SETUP CTRL
P.CLK
SHP
SHD
FROM
PROCESS BLOCK

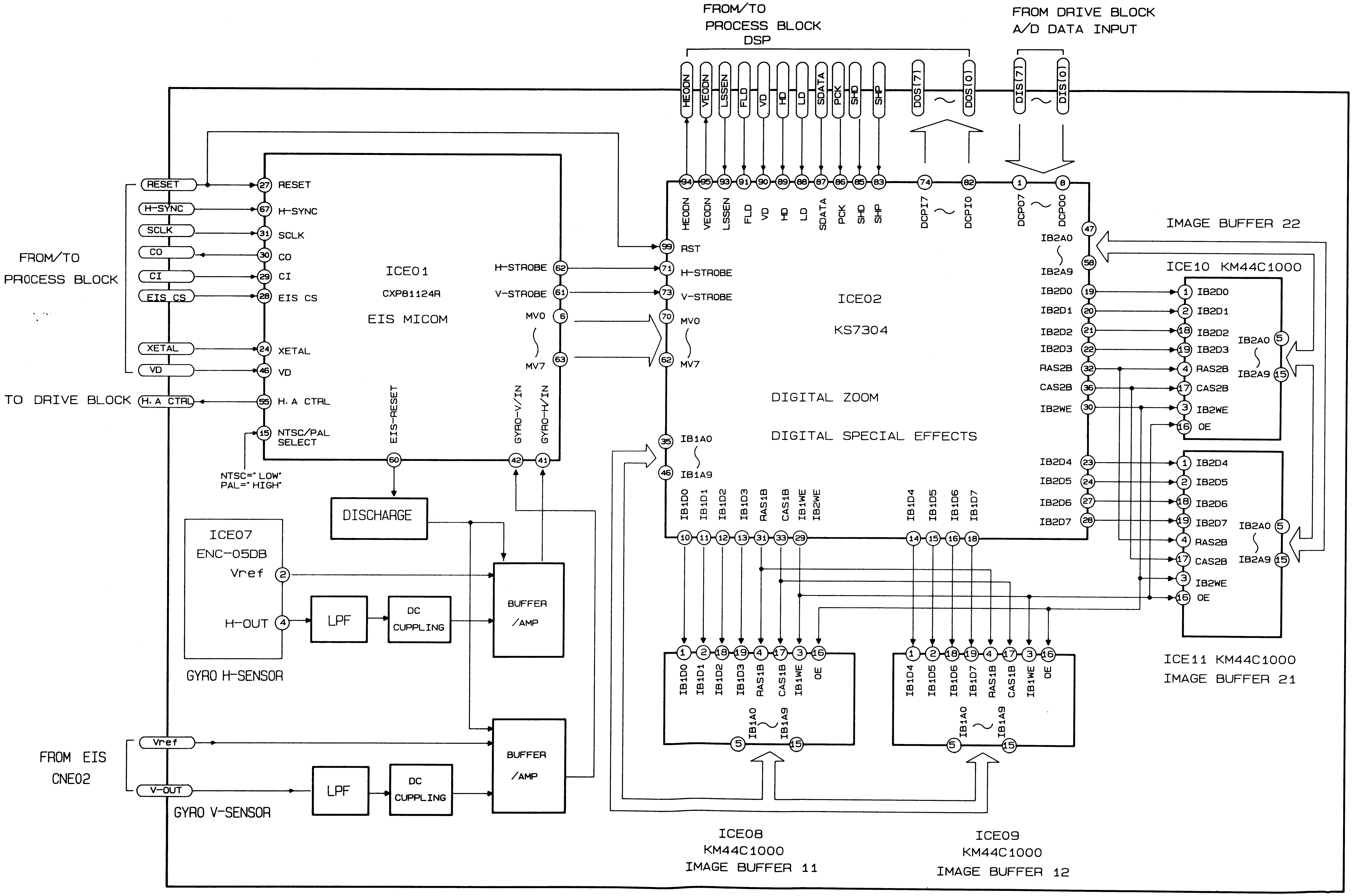
11-12. A/F


TO DRIVE BLOCK
ST PWM
DSP CS
RE
WE
ADDR. STB
ADDR. 0
ADDR. 7
XSG2
HD
VD
FROM DRIVE BLOCK
V REF 3V
XA01 12MHZ
RESET BLOCK
CAM 5V
EVER 5V
ST PWM
V. REF
X1
X2
RESET
EEPROM CS
ICA01
UPD78214
A/F MICOM
SG2
EEPROM CLK
EEPROM DATA
EVR STB
EVR RST
HALL
F. CW/CCW
F. REF
F. CLK
Z. CLK
Z. REF
Z. CW/CCW
AF CS
CI
CO
SCK
F1
F0
ZOOM RST
FOCUS RST
ICA02
X24C01
EEPROM
CS
CLK
DATA
ICA03
MB88346
EVR
STB
REF. TOP
SETUP
C-r
RG
AGC
VSUB
Y-r
IRIS
SET. CTRL
C-r CTRL
RG CTRL
AGC CTRL
VSUB CTRL
Y-r CTRL
TO DRIVE BLOCK
IRIS & HALL CONTROL BLOCK
IRIS DET
FROM DRIVE BLOCK
CK1
REF IN
CW/CCW
ICA05
TB6504F
ZOOM MOTOR DRIVE
ICA04
TB6504F
FOCUS MOTOR DRIVE
ØA
ØĀ
ØB
ØB̄
CNA01
EVER 5V
UNREG B+
GND
CAM 5V
15V
20V
AF_CS
-8V
CI
CO
SCK
EIS CS
F1
F0
SS 5V
SS 5V-1
C OUT
Y OUT
FROM/TO SYS/SERVO CN603
CAM 5V
VCC
LED GND
Z. RESET
Z. A+
Z. A-
Z. B-
Z. B+
F. RESET
F. B-
F. B+
F. A+
F. A-
DRIVE+
DRIVE-
HALL OUT+
HALL IN+
HALL OUT-
HALL IN-
CNA02
FROM/TO LENS
X12 LENS
Y OUT
C OUT
FROM PROCESS BLOCK

11-13. PROCESS


FROM DRIVE BLOCK
FROM/TO EIS BLOCK
DIS(7) ~ DIS(0)
E.RST
LSSEN
VEOON
HEOON
LD
SDATA
FLD
DOS(7) ~ DOS(0)
TO DRIVE BLOCK EIS BLOCK
PCK
SHD
SHP
TO DRIVE BLOCK
CLP1
PBLK
CLP4
CLP3
H1
H2
XRG
XSG1
XSG2
XSUB
V1
V2
V3
V4
ST PWM
ICP01
KS7301B
DSP
C(7) ~ C(0)
Y(7) ~ Y(0)
D/A CLK C
D/A CLK Y
SYNC
PC
X3
X4
SCK
RESETB
DSP_CSB
READ_E
ADDR_STB
WRT_E
I/O.0 ~ I/O.7
DVD
DHD
X2
X1
DSP RESET
SS5V
XP01
28.375MHz
CTP01
PLL BLOCK
ICP02
KDA0408
D/A CONVETER
B DATA7
B DATA 0
G DATA7
G DATA0
B CLK
G CLK
G OUT(Y OUT)
B OUT(C OUT)
BUFFER
FILTER
5.5M LPF
3.58M BPF
AMP
C OUT
Y OUT
TO A/F BLOCK
ADDR.0 ~ ADDR.7
VD
HD
FROM A/F BLOCK
TO A/F BLOCK
TO A/F BLOCK EIS BLOCK

11-14. EIS


FROM/TO PROCESS BLOCK DSP
FROM DRIVE BLOCK A/D DATA INPUT
HEODN
VEODN
LSSEN
FLD
VD
HD
LD
SDATA
PCK
SHD
SHP
DOS[7]
DOS[0]
DIS[7]
DIS[0]
FROM/TO PROCESS BLOCK
RESET
H-SYNC
SCLK
CO
CI
EIS CS
XETAL
VD
TO DRIVE BLOCK
H. A CTRL
NTSC/PAL SELECT
NTSC=" LOW"
PAL=" HIGH"
ICE01
CXP81124R
EIS MICOM
H-STROBE
V-STROBE
MV0
MV7
EIS-RESET
GYRO-V/IN
GYRO-H/IN
ICE02
KS7304
RST
H-STROBE
V-STROBE
MV0
MV7
IB1A0
IB1A9
DIGITAL ZOOM
DIGITAL SPECIAL EFFECTS
DCPI7
DCPI0
DCPO7
DCPO0
IB2A0
IB2A9
IB2D0
IB2D1
IB2D2
IB2D3
RAS2B
CAS2B
IB2WE
IB2D4
IB2D5
IB2D6
IB2D7
IB1D0
IB1D1
IB1D2
IB1D3
RAS1B
CAS1B
IB1WE
IB2WE
IB1D4
IB1D5
IB1D6
IB1D7
IMAGE BUFFER 22
ICE10 KM44C1000
OE
ICE11 KM44C1000
IMAGE BUFFER 21
ICE08
KM44C1000
IMAGE BUFFER 11
ICE09
KM44C1000
IMAGE BUFFER 12
DISCHARGE
ICE07
ENC-05DB
Vref
H-OUT
GYRO H-SENSOR
LPF
DC CUPPLING
BUFFER /AMP
FROM EIS CNE02
Vref
V-OUT
GYRO V-SENSOR

12. SCHEMATIC DIAGRAMS

Page

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12-4. PRE-AMP ----------------------------- 12-8
12-5. AUDIO -------------------------------- 12-10
12-6. MIC ---------------------------------- 12-12
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12-8. FUNCTION CAMERA -------------------- 12-14
12-9. FUNCTION ROTARY -------------------- 12-15
12-10. C.V.F -------------------------------- 12-16
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12-14. PROCESS ---------------------------- 12-24
12-15. EIS ---------------------------------- 12-26
12-16. ADAPTOR ---------------------------- 12-28

NOTE

- For Schematic Diagram
  - Resistors are in ohms, 1/8W unless otherwise noted.
  - Circled numbers refer to waveforms.

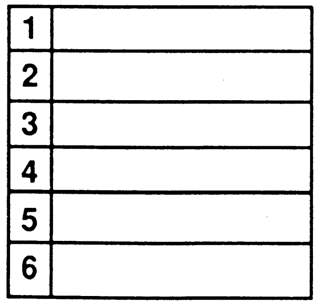
SPECIAL NOTE :
All integratedcircuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostically sensitive (ES) devices" section of this service manual.

NOTE :
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list. And may be slightly different or amended since this drawing was prepared.

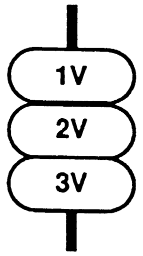
INFORTANT SAFETY NOTICES :
Components identified with the mark ⚠ have the special characteristics for safety when replacing any of these components. Use only the same type.

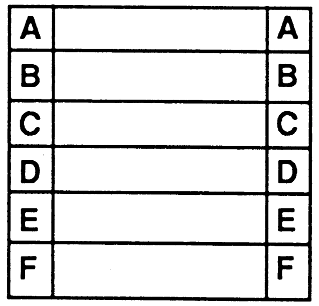
GENERAL INFORMATION

- The type of connecting connector to schematics.



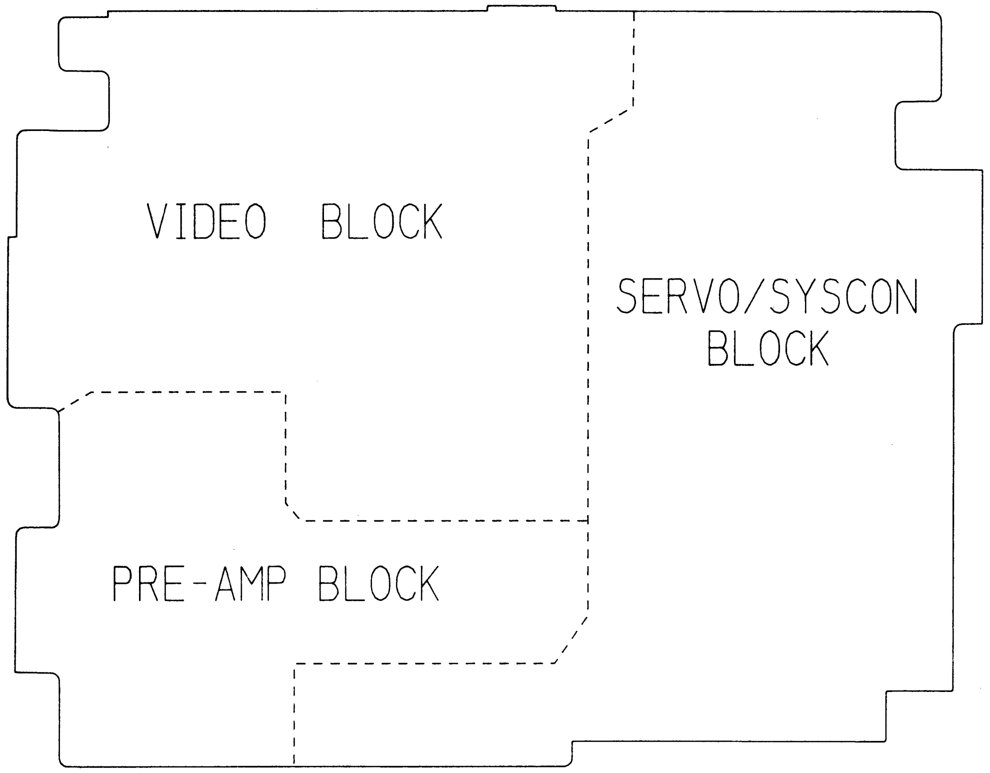
- The type of connecting pattern to schematics.



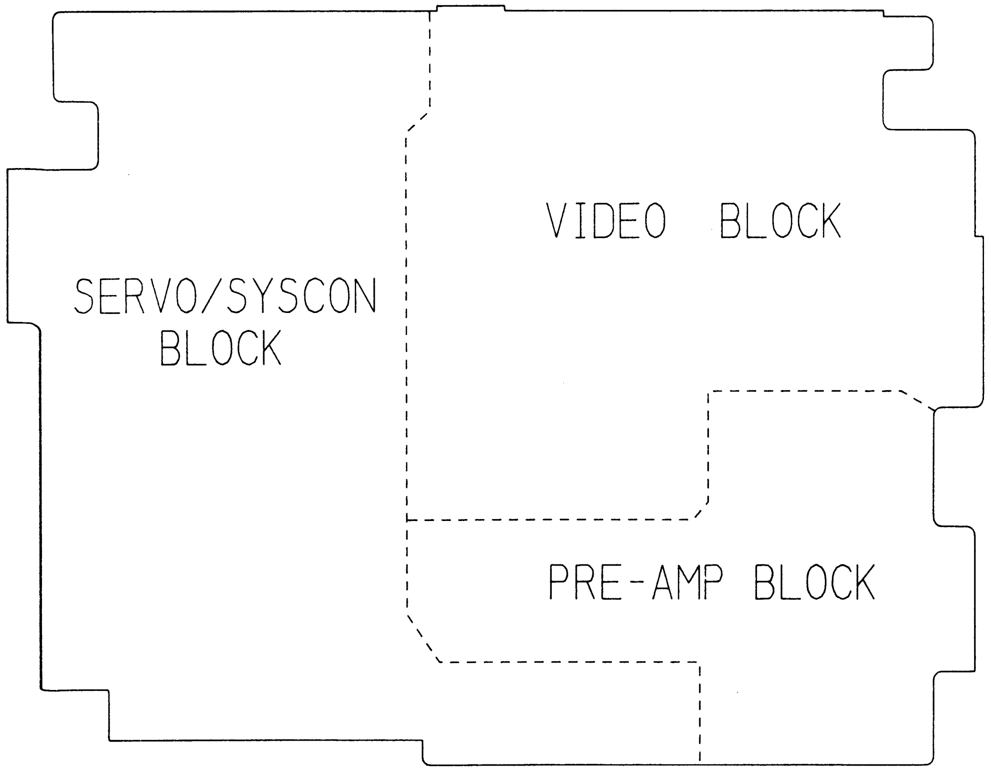


* BLOCK IDENTIFICATION OF VCR/ CAMERA MAIN PCB

VCR MAIN PCB

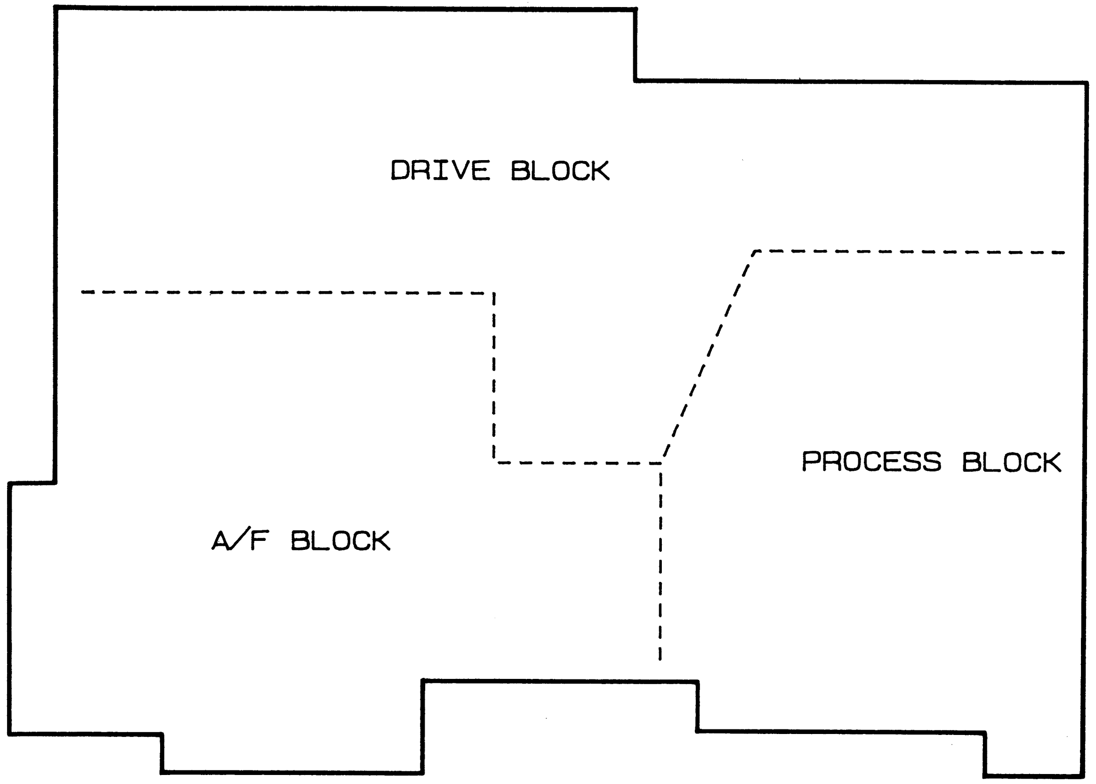

VIDEO BLOCK
SERVO/SYSCON BLOCK
PRE-AMP BLOCK

(COMPONENT SIDE)

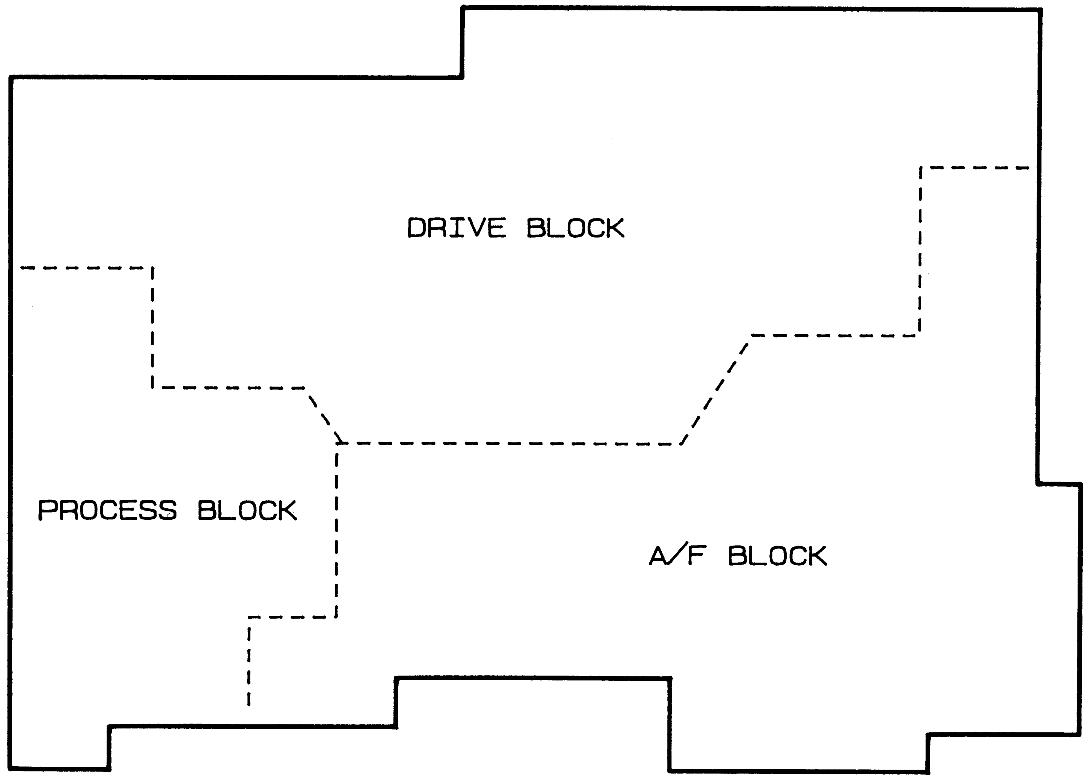

VIDEO BLOCK
SERVO/SYSCON BLOCK
PRE-AMP BLOCK

(CONDUCTOR SIDE)

CAMERA MAIN PCB

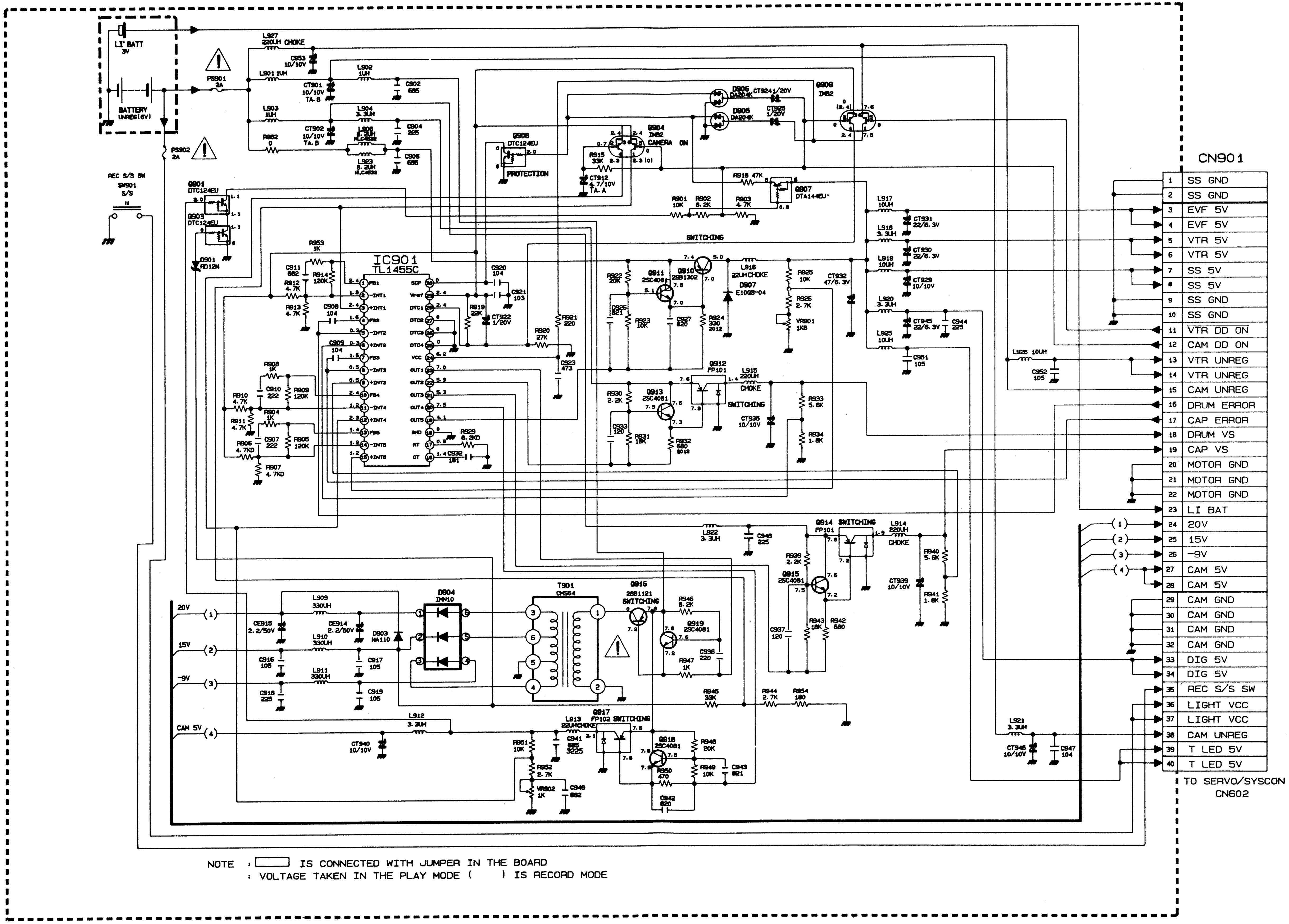

DRIVE BLOCK
PROCESS BLOCK
A/F BLOCK

(COMPONENT SIDE)


DRIVE BLOCK
PROCESS BLOCK
A/F BLOCK

(CONDUCTOR SIDE)

12-1. DC/DC CONVERTER


LI BATT 3V
BATTERY UNREG(6V)
PS901 2A
PS902 2A
REC S/S SW SW901 S/S
L927 220UH CHOKE
IC901 TL1455C
Q901 DTC124EU
Q903 DTC124EU
D901 RD12M
Q906 DTC124EU PROTECTION
Q904 IMB2 CAMERA ON
D906 DA204K
D905 DA204K
Q909 IMB2
Q907 DTA144EU
Q910 2SB1302
Q911 2SC4081
D907 E10QS-04
SWITCHING
Q912 FP101
Q913 2SC4081
L915 220UH CHOKE
Q914 SWITCHING FP101
Q915 2SC4081
L914 220UH CHOKE
D904 IMN10
D903 MA110
T901 CHS64
Q916 2SB1121 SWITCHING
Q919 2SC4081
Q917 FP102 SWITCHING
Q918 2SC4081
L913 22UH CHOKE
20V
15V
-9V
CAM 5V
CN901
1 SS GND
2 SS GND
3 EVF 5V
4 EVF 5V
5 VTR 5V
6 VTR 5V
7 SS 5V
8 SS 5V
9 SS GND
10 SS GND
11 VTR DD ON
12 CAM DD ON
13 VTR UNREG
14 VTR UNREG
15 CAM UNREG
16 DRUM ERROR
17 CAP ERROR
18 DRUM VS
19 CAP VS
20 MOTOR GND
21 MOTOR GND
22 MOTOR GND
23 LI BAT
24 20V
25 15V
26 -9V
27 CAM 5V
28 CAM 5V
29 CAM GND
30 CAM GND
31 CAM GND
32 CAM GND
33 DIG 5V
34 DIG 5V
35 REC S/S SW
36 LIGHT VCC
37 LIGHT VCC
38 CAM UNREG
39 T LED 5V
40 T LED 5V
TO SERVO/SYSCON CN602

NOTE : ☐ IS CONNECTED WITH JUMPER IN THE BOARD
: VOLTAGE TAKEN IN THE PLAY MODE ( ) IS RECORD MODE

12-2. SYSTEM COTROL/SERVO

The schematic diagram of "SYSTEM CONRTOL/SERVO" is on page 12-29

IC601 (CXP80732)

PIN NO	STOP	PLAY	REC
1	0.0	0.0	0.0
2	0.0	4.8	0.0
3	4.8	4.8	4.8
4	0.0	PULS	9.0
5	4.7	0.0	4.7
6	0.0	0.0	0.0
7	4.9	4.9	PULS
8	0.0	0.0	4.5
9	5.0	4.8	4.8
10	0.0	4.8	4.8
11	0.0	0.0	0.0
12	4.9	4.9	4.9
13	0.0	0.0	4.9
14	0.0	0.0	4.9
15	4.9	4.9	4.9
16	0.0	0.0	0.0
17	0.0	0.0	0.0
18	5.0	5.0	5.0
19	5.0	5.0	5.0
20	5.0	5.0	5.0
21	0.0	0.0	0.0
22	5.0	5.0	5.0
23	5.0	5.0	5.0
24	0.0	0.0	0.0
25	0.0	0.0	0.0
26	0.0	0.0	0.0
27	0.0	0.0	3.7
28	0.0	5.0	5.0
29	0.0	0.0	0.0
30	5.0	5.0	5.0
31	PULS	PULS	PULS
32	0.0	0.0	0.7
33	5.0	5.0	5.0
34	5.0	5.0	5.0
35	0.0	5.0	5.0
36	PULS	PULS	PULS
37	PULS	PULS	PULS
38	PULS	PULS	PULS
39	0.0	0.0	0.0
40	5.0	5.0	5.0

IC601 (CXP80732)

PIN NO	STOP	PLAY	REC
41	0.0	0.0	0.0
42	PULS	PULS	PULS
43	PULS	PULS	PULS
44	4.9	4.9	4.9
45	4.9	4.9	4.9
46	PULS	PULS	PULS
47	PULS	PULS	PULS
48	0.0	0.0	0.0
49	0.0	0.0	0.0
50	0.0	0.0	0.0
51	0.0	0.0	0.0
52	0.0	0.0	0.0
53	5.0	5.0	5.0
54	5.0	5.0	5.0
55	3.8	3.8	3.8
56	4.6	4.6	4.6
57	4.6	4.6	4.6
58	4.6	4.6	4.6
59	4.6	4.6	4.6
60	4.0	4.0	3.4
61	3.6	3.6	3.6
62	2.6	PULS	4.0
63	0or5	PULS	PULS
64	0or5	PULS	PULS
65	5.0	0.0	0.0
66	5.0	PULS	PULS
67	0.0	0.0	0.0
68	0.0	PULS	PULS
69	5.0	PULS	PULS
70	5.0	PULS	PULS
71	0.0	0.0	0.0
72	0.0	0.0	0.0
73	5.0	0.0	5.0
74	5.0	5.0	5.0
75	0.0	PULS	PULS
76	0.0	PULS	PULS
77	5.0	PULS	PULS
78	5.0	5.0	5.0
79	PULS	PULS	PULS
80	PULS	PULS	PULS

IC601 (CXP80732)

PIN NO	STOP	PLAY	REC
81	PULS	PULS	PULS
82	5.0	5.0	5.0
83	PULS	PULS	PULS
84	0.0	0.0	0.0
85	5.0	5.0	5.0
86	PULS	PULS	PULS
87	PULS	PULS	PULS
88	0.0	0.0	0.0
89	5.0	5.0	5.0
90	5.0	5.0	5.0
91	0.0	0.0	0.0
92	0.1	0.1	0.1
93	4.8	4.8	0.0
94	4.9	4.9	0.0
95	0.0	4.9	4.9
96	0.0	PULS	PULS
97	0.0	PULS	PULS
98	0.0	PULS	PULS
99	0.0	5.0	5.0
100	0.0	5.0	5.0

IC504 (BA6285)

PIN NO	STOP	PLAY	REC
1	0.0	0.0	0.0
2	0.0	0.0	0.0
3	0.0	0.0	0.0
4	6.85	6.85	6.85
5	6.85	6.85	6.85
6	0.0	0.0	0.0
7	0.0	0.0	0.0
8	0.0	0.0	0.0
9	0.0	0.0	0.0
10	0.0	0.0	0.0
11	0.0	0.0	0.0
12	5.55	5.55	5.55
13	0.0	0.0	0.0
14	0.0	0.0	0.0
15	0.0	0.0	0.0
16	0.0	0.0	0.0

IC501 (KA8322)

PIN NO	STOP	PLAY	REC
1	1.8	1.8	PULS
2	4.8	4.8	0.0
3	2.5	PULS	2.5
4	2.5	2.5	2.5
5	0.0	0.0	0.0
6	0.0	0.0	0.0
7	0.0	1.0	1.0
8	0.0	1.0	1.0
9	0.0	1.0	1.0
10	2.6	2.6	2.6
11	2.6	2.6	2.6
12	2.6	2.6	2.6
13	0.0	0.0	0.0
14	0.0	0.0	0.0
15	2.2	PULS	3.1
16	2.6	2.6	2.6
17	2.6	2.6	2.6
18	0.0	PULS	5.0
19	0.0	5.0	5.0
20	5.0	0.0	5.0
21	0.0	0.0	0.0
22	3.2	PULS	3.0
23	0.0	PULS	0.3
24	0.0	0.3	0.3
25	1.0	1.0	1.0
26	0.0	0.0	5.0
27	0or5	PULS	PULS
28	0or4	PULS	PULS
29	0or4	PULS	PULS
30	0or5	PULS	PULS
31	0.0	0.0	0.0
32	0.0	0.0	0.0
33	0.0	0.0	0.0
34	2.6	2.6	2.6
35	–	–	–
36	0.0	PULS	PULS
37	0.0	PULS	PULS
38	5.0	5.0	5.0
39	0.0	0.0	0.0
40	0.0	0.0	0.0

IC501 (KA8322)

PIN NO	STOP	PLAY	REC
41	0.0	0.0	0.0
42	0.0	0.0	0.0
43	0.0	0.0	0.0
44	0.0	0.0	0.0
45	5.0	5.0	5.0
46	2.6	2.6	2.6
47	0.0	0.0	0.0
48	0.0	0.0	4.3
49	3.3	3.3	PULS
50	2.6	2.6	4.3
51	2.6	PULS	4.5
52	2.5	2.5	0.0
53	0.0	5.0	5.0
54	2.6	PULS	2.6
55	2.6	PULS	2.6
56	2.6	PULS	2.6
57	2.6	PULS	1.6
58	2.6	PULS	1.4
59	2.3	2.3	0.0
60	2.6	2.6	2.6
61	5.1	5.1	5.1
62	3.7	3.7	3.7
63	2.6	2.6	PULS
64	3.3	3.3	PULS

IC505 (CXA1512N)

PIN NO	STOP	PLAY	REC
1	2.0	2.0	2.0
2	2.0	2.0	2.0
3	2.0	2.0	2.0
4	2.0	2.0	2.0
5	2.0	2.0	2.0
6	2.0	2.0	2.0
7	0.0	0.0	0.0
8	1.95	1.95	1.95
9	0.0	PULS	PULS
10	5.0	PULS	PULS
11	5.0	5.0	5.0
12	0.0	0.0	0.0
13	2.9	2.9	2.9
14	2.85	2.85	2.8

IC502 (TPIC 1327)

PIN NO	STOP	PLAY	REC
1	0.1	0.15	0.15
2	0.0	0.0	0.0
3	0.0	0.0	0.0
4	0.0	0.0	0.0
5	0.4	0.4	0.4
6	0.0	1.3	1.3
7	0.0	4.85	4.85
8	0.0	5.9	5.9
9	0.0	5.9	5.9
10	0.0	0.0	0.0
11	0.0	0.0	0.0
12	6.83	6.83	6.83
13	0.1	1.25	1.25
14	0.0	PULS	PULS
15	0.0	0.0	0.0
16	0.0	PULS	PULS
17	0.0	0.0	0.0
18	0.0	PULS	PULS
19	0.1	1.25	1.25
20	0.0	PULS	PULS
21	0.0	PULS	PULS
22	0.0	PULS	PULS
23	0.0	PULS	PULS
24	0.0	3.85	3.85
25	0.0	0.65	0.65
26	0.0	0.5	0.5
27	0.0	0.7	0.7
28	0.0	0.7	0.7
29	0.0	0.7	0.7
30	5.0	5.0	5.0

IC602 (S8420)

PIN NO	STOP	PLAY	REC
1	5.1	5.1	5.1
2	0.0	0.0	0.0
3	5.2	5.2	5.2
4	0.0	0.0	0.0
5	4.95	4.95	4.95
6	0.0	0.0	0.0
7	5.15	5.15	5.15
8	6.8	6.8	6.8

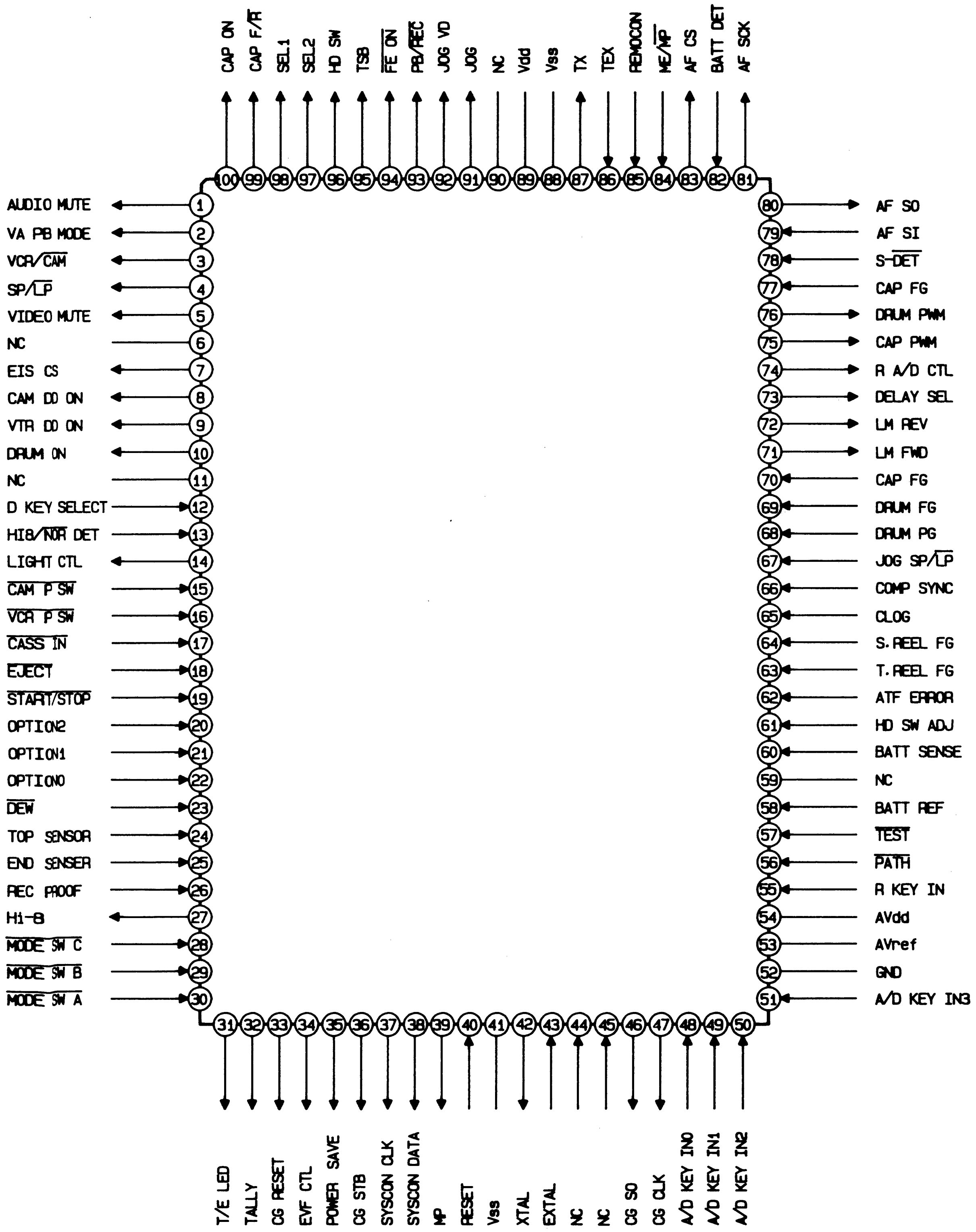
IC503 (LB1851M)

PIN NO	STOP	PLAY	REC
1	0.0	0.0	0.0
2	0.0	0.0	0.0
3	0.0	PULS	PULS
4	0.2	1.85	1.85
5	6.85	6.8	6.8
6	5.1	5.1	5.1
7	0.0	4.9	4.9
8	0.0	0.75	0.75
9	0.0	0.75	0.75
10	0.0	2.55	2.55
11	2.55	2.55	2.55
12	0.0	PULS	PULS
13	5.0	PULS	PULS
14	0.0	0.0	0.0
15	0.0	0.0	0.0
16	0.0	0.0	0.0
17	0.0	0.0	0.0
18	0.0	4.9	0.0
19	0.0	0.0	0.0
20	1.6	1.6	1.6
21	1.6	1.6	1.6
22	2.0	2.0	2.0
23	2.0	2.0	2.0
24	2.4	2.4	2.4
25	2.4	2.4	2.4
26	0.0	0.0	0.0
27	0.0	PULS	PULS
28	0.0	PULS	PULS
29	0.0	0.0	0.0
30	0.0	0.0	0.0

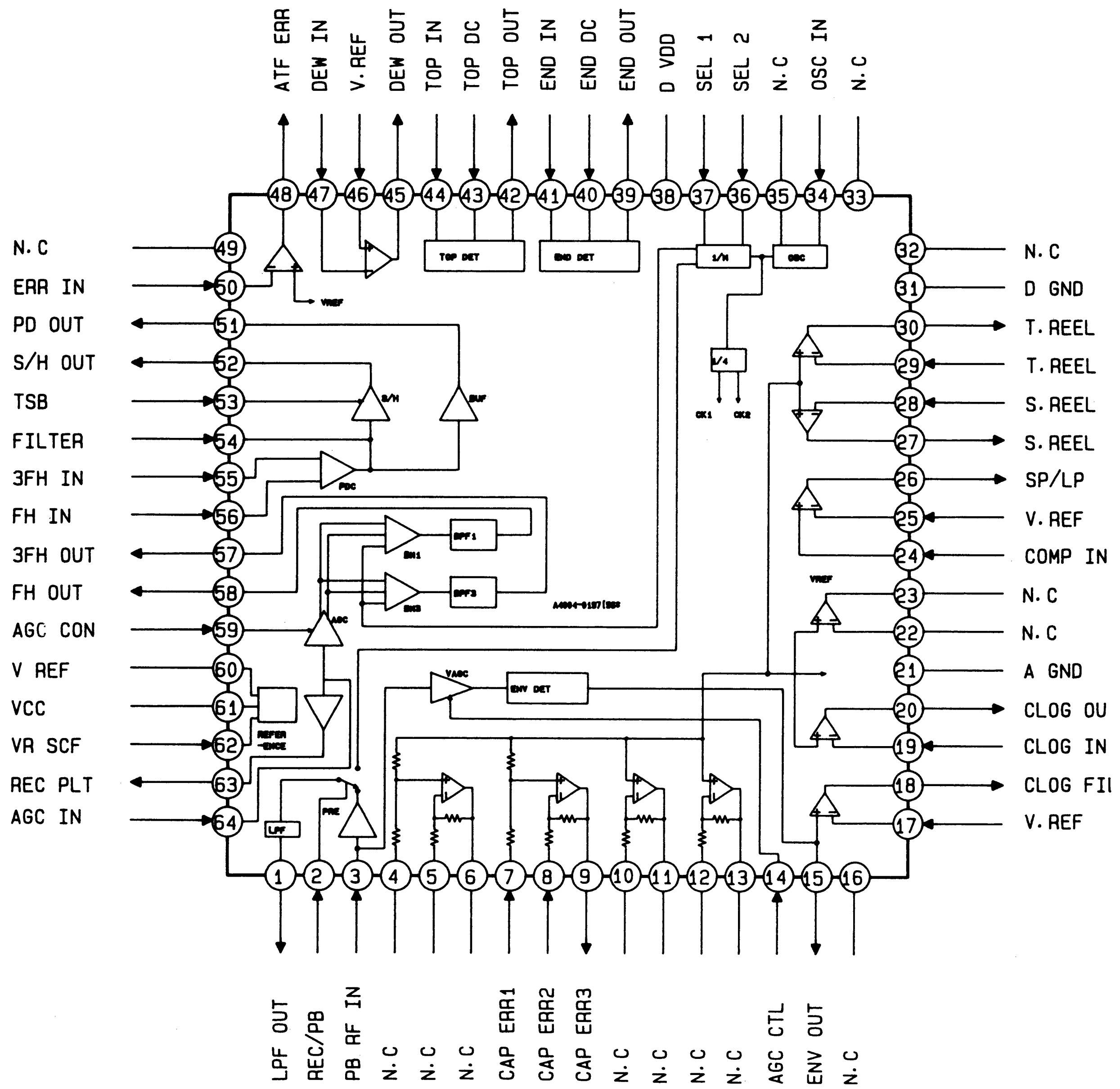
IC506 (TA75S01F)

PIN NO	STOP	PLAY	REC
1	2.5	2.5	2.5
2	0.0	0.0	0.0
3	2.5	2.5	2.5
4	1.0	1.0	1.0
5	5.0	5.0	5.0

IC601 CXP80782


CAP ON
CAP F/R̄
SEL1
SEL2
HD SW
TSB
F̄Ē ŌN̄
PB/R̄ĒC̄
JOG VD
JOG
NC
Vdd
Vss
TX
TEX
REMOCON
ME/M̄P̄
AF CS
BATT DET
AF SCK
AUDIO MUTE
VA PB MODE
VCR/C̄ĀM̄
SP/L̄P̄
VIDEO MUTE
NC
EIS CS
CAM DD ON
VTR DD ON
DRUM ON
NC
D KEY SELECT
HI8/N̄ŌR̄ DET
LIGHT CTL
C̄ĀM̄ P̄ S̄W̄
V̄C̄R̄ P̄ S̄W̄
C̄ĀS̄S̄ ĪN̄
ĒJ̄ĒC̄T̄
S̄T̄ĀR̄T̄/S̄T̄ŌP̄
OPTION2
OPTION1
OPTION0
D̄ĒW̄
TOP SENSOR
END SENSER
REC PROOF
Hi-8
M̄ŌD̄Ē S̄W̄ C̄
M̄ŌD̄Ē S̄W̄ B̄
M̄ŌD̄Ē S̄W̄ Ā
AF SO
AF SI
S-D̄ĒT̄
CAP FG
DRUM PWM
CAP PWM
R A/D CTL
DELAY SEL
LM REV
LM FWD
CAP FG
DRUM FG
DRUM PG
JOG SP/L̄P̄
COMP SYNC
CLOG
S.REEL FG
T.REEL FG
ATF ERROR
HD SW ADJ
BATT SENSE
NC
BATT REF
T̄ĒS̄T̄
P̄ĀT̄H̄
R KEY IN
AVdd
AVref
GND
A/D KEY IN3
T/E LED
TALLY
CG RESET
EVF CTL
POWER SAVE
CG STB
SYSCON CLK
SYSCON DATA
MP
R̄ĒS̄ĒT̄
Vss
XTAL
EXTAL
NC
NC
CG SO
CG CLK
A/D KEY IN0
A/D KEY IN1
A/D KEY IN2

IC501 KA8322


ATF ERR
DEW IN
V.REF
DEW OUT
TOP IN
TOP DC
TOP OUT
END IN
END DC
END OUT
D VDD
SEL 1
SEL 2
N.C
OSC IN
N.C
N.C
ERR IN
PD OUT
S/H OUT
TSB
FILTER
3FH IN
FH IN
3FH OUT
FH OUT
AGC CON
V REF
VCC
VR SCF
REC PLT
AGC IN
N.C
D GND
T.REEL
T.REEL
S.REEL
S.REEL
SP/LP
V.REF
COMP IN
N.C
N.C
A GND
CLOG OU
CLOG IN
CLOG FI
V.REF
LPF OUT
REC/PB
PB RF IN
N.C
N.C
N.C
CAP ERR1
CAP ERR2
CAP ERR3
N.C
N.C
N.C
N.C
AGC CTL
ENV OUT
N.C
TOP DET
END DET
1/N
OSC
S/H
BUF
PDC
BPF1
BPF2
AGC
VAGC
ENV DET
LPF
PRE
REFER-ENCE
1/4
CK1
CK2
VREF

12-3. VIDEO

The schematic diagram of "VIDEO" is on page 12-30

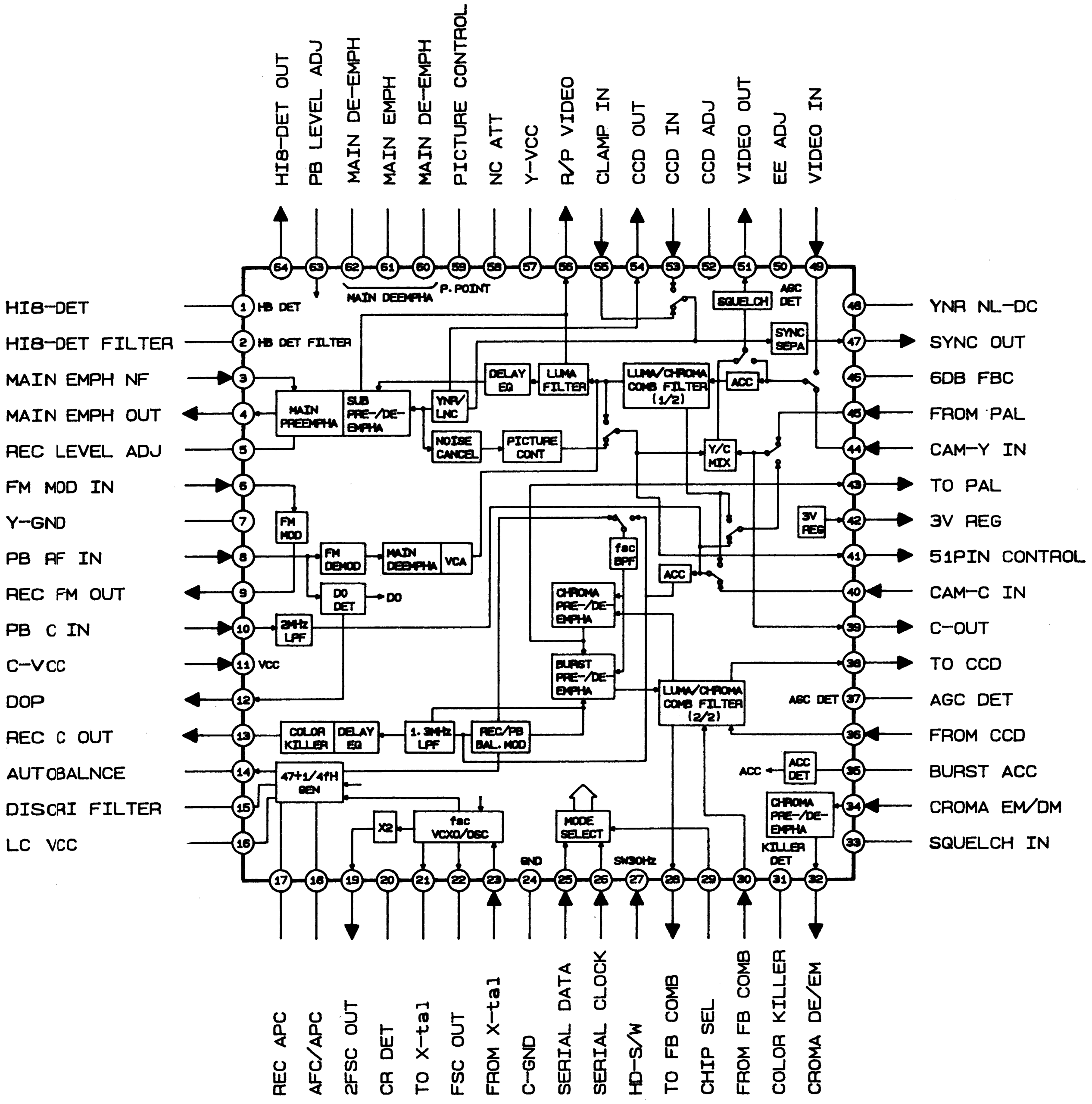
IC200 (HA118192F)		
PIN NO	REC	PLAY
1	3.9	2.6
2	0	0
3	2.7	2.0
4	2.7	2.0
5	2.0	2.0
6	2.8	2.5
7	0	0
8	3.3	2.9
9	3.3	4.1
10	2.5	2.3
11	5.0	5.0
12	4.4	4.2
13	2.4	0
14	2.6	2.2
15	2.8	2.4
16	5.0	5.0
17	2.7	2.7
18	2.8	2.2
19	2.8	2.5
20	2.8	2.5
21	–	–
22	–	–
23	–	–
24	0	0
25	–	–
26	–	–
27	–	–
28	2.5	2.5
29	0	0
30	3.3	3.1
31	1.3	2.2
32	2.6	2.5
33	0.3	0.3
34	2.5	2.5
35	3.2	2.0
36	3.2	3.0
37	2.8	1.8
38	2.0	1.8
39	2.5	2.2
40	2.5	2.5

IC200 (HA118192F)		
PIN NO	REC	PLAY
41	1.0	1.0
42	3.2	3.2
43	2.9	2.5
44	3.1	2.8
45	2.5	2.0
46	3.1	2.4
47	5.0	5.0
48	1.7	1.7
49	3.2	3.2
50	2.5	2.5
51	2.4	1.4
52	1.8	1.6
53	3.3	2.8
54	2.8	2.2
55	3.3	3.0
56	2.5	2.5
57	5.0	5.0
58	4.0	1.7
59	2.7	2.7
60	0	0
61	2.9	2.9
62	0	0.5
63	2.4	2.4
64	4.4	4.2

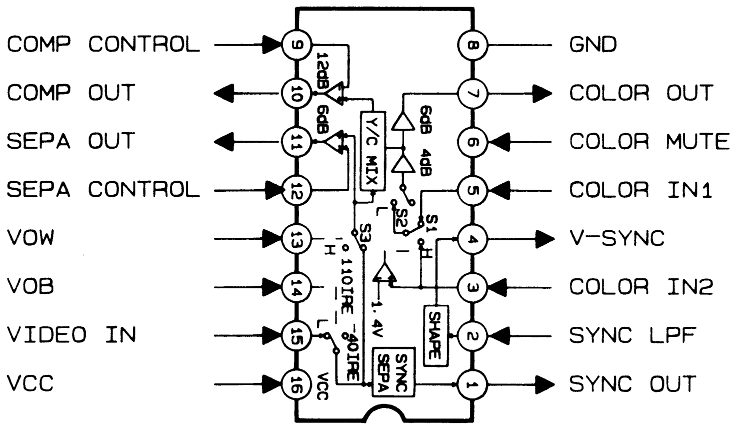
IC450 (CXL1506)		
PIN NO	REC	PLAY
1	0.0	0.0
2	1.8	1.8
3	2.2	2.2
4	0.0	0.0
5	1.4	1.4
6	0.0	0.0
7	1.6	1.6
8	0.0	0.0
9	0.0	0.0
10	0.0	0.0
11	4.8	4.8
12	4.8	4.8
13	4.8	4.8
14	0.0	0.0
15	1.8	1.8
16	1.8	1.8
17	4.7	4.7
18	0.6	0.6
19	0.0	0.0
20	0.0	0.0

IC451 (MSM7403MS)		
PIN NO	REC	PLAY
1	–	–
2	0.0V	0.0V
3	5.0V	5.0V
4	–	–
5	2.2V	2.2V
6	2.2V	2.2V
7	2.5V	2.5V
8	–	–

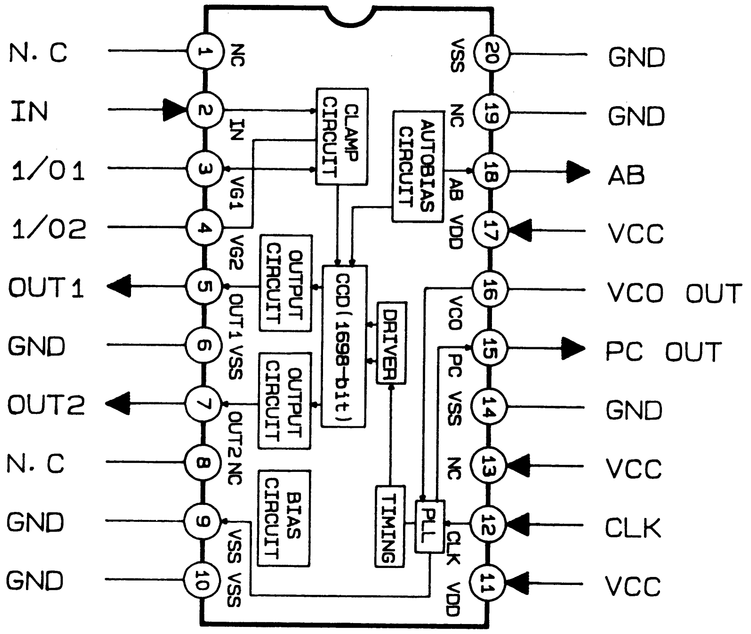
IC200 HA118192F


HI8-DET OUT
PB LEVEL ADJ
MAIN DE-EMPH
MAIN EMPH
MAIN DE-EMPH
PICTURE CONTROL
NC ATT
Y-VCC
R/P VIDEO
CLAMP IN
CCD OUT
CCD IN
CCD ADJ
VIDEO OUT
EE ADJ
VIDEO IN
64
63
62
61
60
59
58
57
56
55
54
53
52
51
50
49
MAIN DEEMPHA
P. POINT
HI8-DET
HI8-DET FILTER
MAIN EMPH NF
MAIN EMPH OUT
REC LEVEL ADJ
FM MOD IN
Y-GND
PB RF IN
REC FM OUT
PB C IN
C-VCC
DOP
REC C OUT
AUTOBALNCE
DISCRI FILTER
LC VCC
1 H8 DET
2 H8 DET FILTER
3
4
5
6
7
8
9
10
11 VCC
12
13
14
15
16
MAIN PREEMPHA
SUB PRE-/DE-EMPHA
YNR/LNC
NOISE CANCEL
PICTURE CONT
DELAY EQ
LUMA FILTER
LUMA/CHROMA COMB FILTER (1/2)
ACC
SQUELCH
AGC DET
SYNC SEPA
Y/C MIX
3V REG
FM MOD
FM DEMOD
MAIN DEEMPHA
VCA
DO DET
DO
2MHz LPF
fsc BPF
ACC
CHROMA PRE-/DE-EMPHA
BURST PRE-/DE-EMPHA
LUMA/CHROMA COMB FILTER (2/2)
AGC DET
COLOR KILLER
DELAY EQ
1.3MHz LPF
REC/PB BAL. MOD
47+1/4fH GEN
X2
fsc VCXO/OSC
MODE SELECT
ACC
ACC DET
CHROMA PRE-/DE-EMPHA
KILLER DET
GND
SW30Hz
YNR NL-DC
SYNC OUT
6DB FBC
FROM PAL
CAM-Y IN
TO PAL
3V REG
51PIN CONTROL
CAM-C IN
C-OUT
TO CCD
AGC DET
FROM CCD
BURST ACC
CROMA EM/DM
SQUELCH IN
48
47
46
45
44
43
42
41
40
39
38
37
36
35
34
33
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
REC APC
AFC/APC
2FSC OUT
CR DET
TO X-tal
FSC OUT
FROM X-tal
C-GND
SERIAL DATA
SERIAL CLOCK
HD-S/W
TO FB COMB
CHIP SEL
FROM FB COMB
COLOR KILLER
CROMA DE/EM

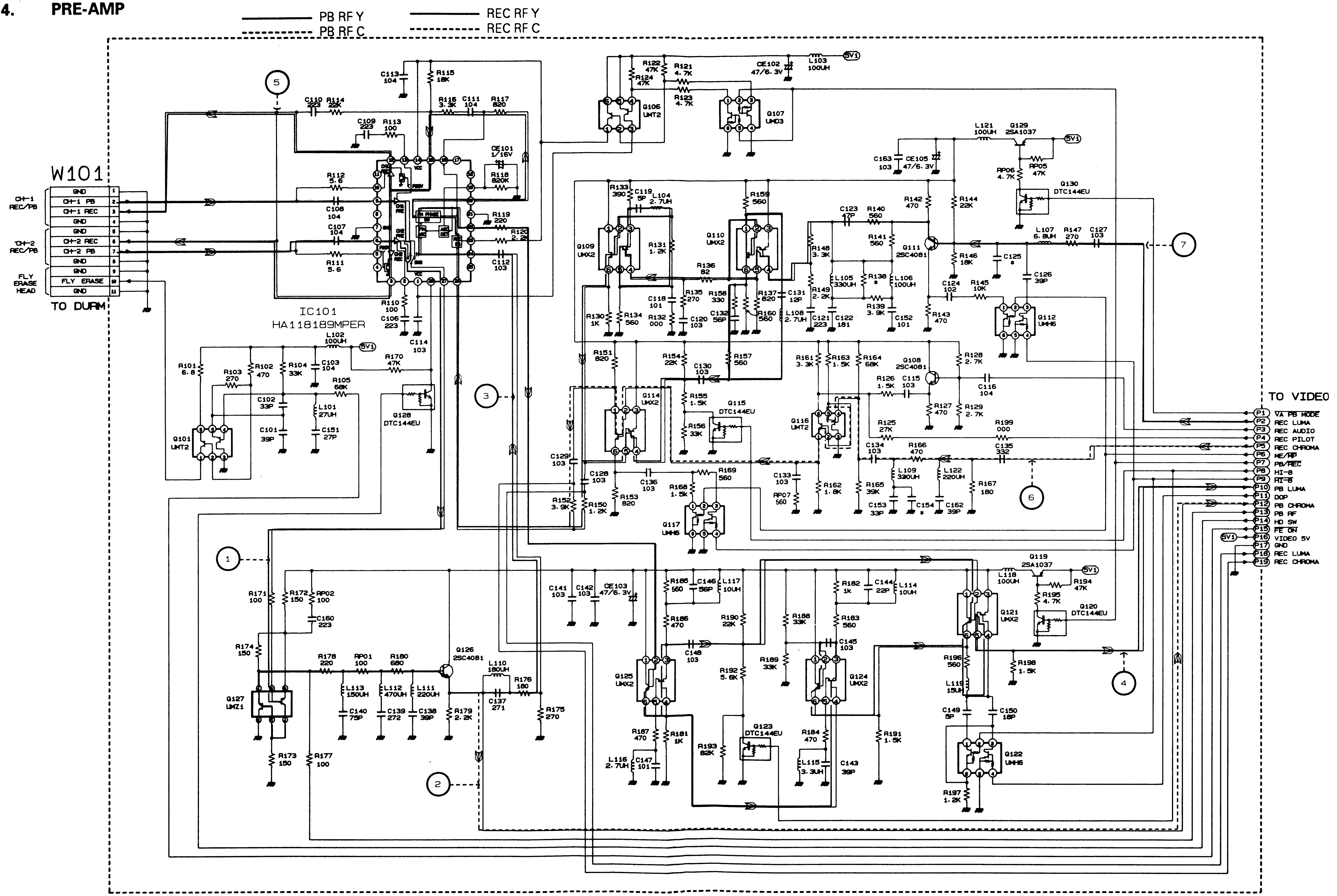
IC300 MM1024


COMP CONTROL
COMP OUT
SEPA OUT
SEPA CONTROL
VOW
VOB
VIDEO IN
VCC
9
10
11
12
13
14
15
16
12dB
6dB
Y/C MIX
6dB
4dB
S2
S1
S3
110IRE
40IRE
1.4V
SHAPE
SYNC SEPA
VCC
H
L
8
7
6
5
4
3
2
1
GND
COLOR OUT
COLOR MUTE
COLOR IN1
V-SYNC
COLOR IN2
SYNC LPF
SYNC OUT

IC450 CXL1506N

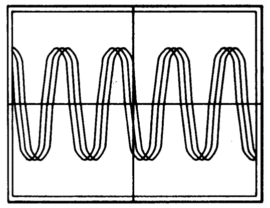

N. C
IN
1/01
1/02
OUT1
GND
OUT2
N. C
GND
GND
1
2
3
4
5
6
7
8
9
10
NC
IN
VG1
VG2
OUT1 VSS
OUT2 NC
VSS VSS
CLAMP CIRCUIT
OUTPUT CIRCUIT
OUTPUT CIRCUIT
BIAS CIRCUIT
CCD(1698-bit)
AUTOBIAS CIRCUIT
DRIVER
TIMING
PLL
VSS
NC
AB VDD
VCO
PC VSS
NC
CLK VDD
20
19
18
17
16
15
14
13
12
11
GND
GND
AB
VCC
VCO OUT
PC OUT
GND
VCC
CLK
VCC

12-4. PRE-AMP

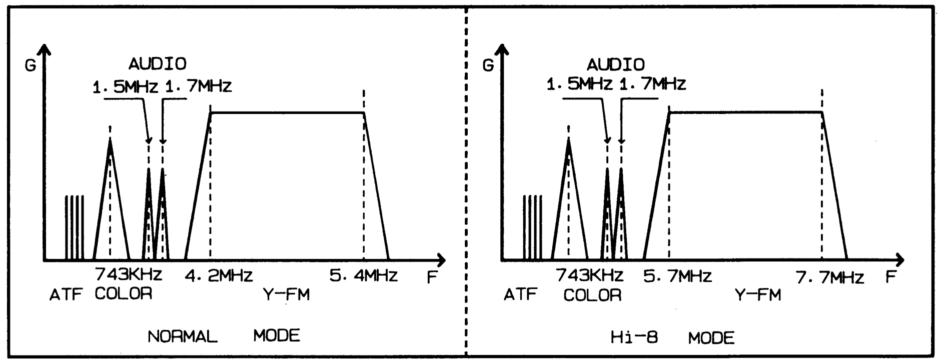

PB RF Y
PB RF C
REC RF Y
REC RF C
W101
CH-1 REC/PB
CH-2 REC/PB
FLY ERASE HEAD
GND
CH-1 PB
CH-1 REC
GND
GND
CH-2 REC
CH-2 PB
GND
GND
FLY ERASE
GND
TO DURM
IC101
HA118189MPER
C113 104
R115 18K
C110 223
R114 22K
C109 223
R113 100
R116 3.3K
C111 104
R117 820
CE101 1/16V
R118 820K
R112 5.6
C108 104
C107 104
R111 5.6
R119 220
R120 2.2K
C112 103
R110 100
C106 223
C114 103
L102 100UH
5V1
R170 47K
R101 6.8
R103 270
R102 470
R104 33K
C103 104
R105 68K
C102 33P
L101 27UH
C101 39P
C151 27P
Q101 UMT2
Q128 DTC144EU
R122 47K
R124 47K
R121 4.7K
R123 4.7K
CE102 47/6.3V
L103 100UH
Q106 UMT2
Q107 UMD3
L121 100UH
Q129 2SA1037
C163 103
CE105 47/6.3V
RP06 4.7K
RP05 47K
Q130 DTC144EU
R133 390
C119 5P
L104 2.7UH
R159 560
Q109 UMX2
R131 1.2K
Q110 UMX2
R136 82
R135 270
R158 330
R137 820
C131 12P
C118 101
R132 000
C120 103
C132 56P
R160 560
L108 2.7UH
R130 1K
R134 560
C123 47P
R140 560
R141 560
R142 470
R144 22K
R148 3.3K
Q111 2SC4081
L107 6.8UH
R147 270
C127 103
R146 18K
C125 *
C126 39P
L105 330UH
R138 *
L106 100UH
R149 2.2K
C121 223
C122 181
R139 3.9K
C152 101
C124 102
R145 10K
R143 470
Q112 UMH6
R151 820
R154 22K
C130 103
R157 560
Q114 UMX2
R155 1.5K
Q115 DTC144EU
R156 33K
R161 3.3K
R163 1.5K
R164 68K
Q108 2SC4081
R128 2.7K
R126 1.5K
C115 103
C116 104
R127 470
R129 2.7K
Q116 UMT2
R125 27K
R199 000
C134 103
R166 470
C135 332
L109 330UH
L122 220UH
C129 103
C128 103
C136 103
R169 560
C133 103
RP07 560
R162 1.8K
R165 39K
R167 180
C153 33P
C154 *
C162 39P
R152 3.9K
R150 1.2K
R153 820
R168 1.5K
Q117 UMH6
TO VIDEO
P1 VA PB MODE
P2 REC LUMA
P3 REC AUDIO
P4 REC PILOT
P5 REC CHROMA
P6 ME/MP
P7 PB/REC
P8 HI-8
P9 HI-8
P10 PB LUMA
P11 DOP
P12 PB CHROMA
P13 PB RF
P14 HD SW
P15 FE ON
P16 VIDEO 5V
P17 GND
P18 REC LUMA
P19 REC CHROMA
R171 100
R172 150
RP02 100
C160 223
R174 150
Q127 UMZ1
R173 150
R177 100
R178 220
RP01 100
R180 680
L113 150UH
L112 470UH
L111 220UH
C140 75P
C139 272
C138 39P
Q126 2SC4081
L110 180UH
R176 180
C137 271
R179 2.2K
R175 270
C141 103
C142 103
CE103 47/6.3V
R185 560
C146 56P
L117 10UH
R182 1K
C144 22P
L114 10UH
R186 470
R190 22K
R188 33K
R183 560
C148 103
C145 103
R189 33K
R192 5.6K
Q125 UMX2
Q124 UMX2
R187 470
R181 1K
R193 82K
Q123 DTC144EU
R184 470
L116 2.7UH
C147 101
L115 3.3UH
C143 39P
R191 1.5K
L118 100UH
Q119 2SA1037
R194 47K
R195 4.7K
Q121 UMX2
Q120 DTC144EU
R196 560
R198 1.5K
L119 15UH
C149 5P
C150 18P
Q122 UMH6
R197 1.2K
1
2
3
4
5
6
7

《SPECTRUM》

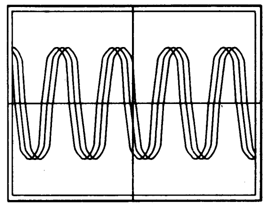
①



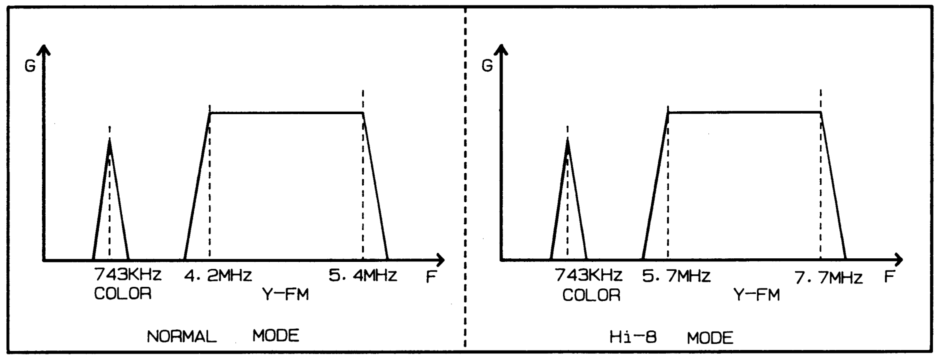
IC101-27
PB MODE
130mVp-p



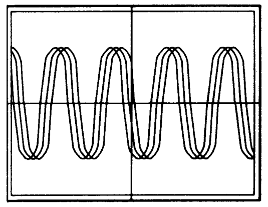
②



Q126-C
PB MODE
500mVp-p

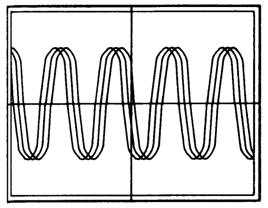


③

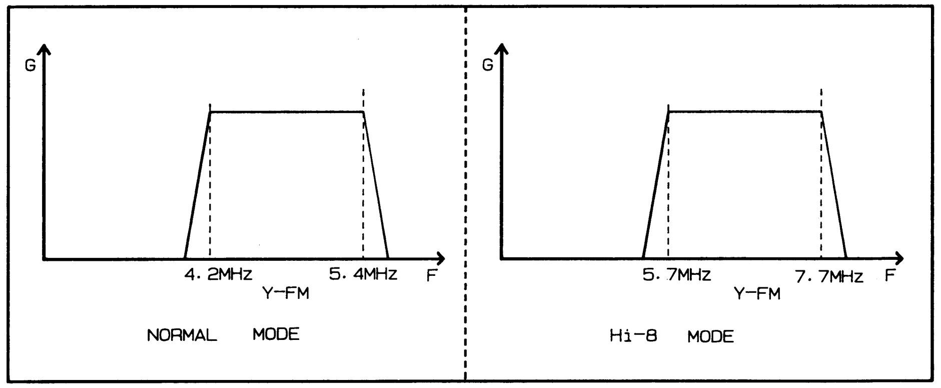


IC101-24
PB MODE
450mVp-p

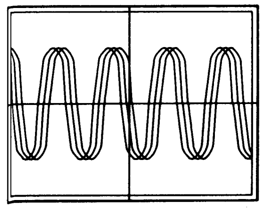
④



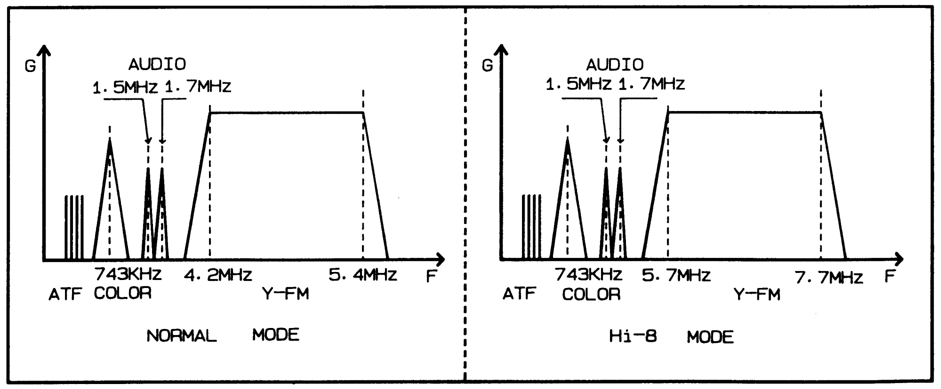
Q121-5
PB MODE
500mVp-p



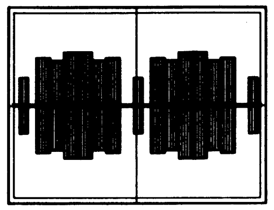
⑤



IC101-12
REC MODE
4.0Vp-p

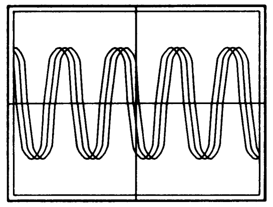


⑥



C135
REC MODE
Burst=300mVp-p

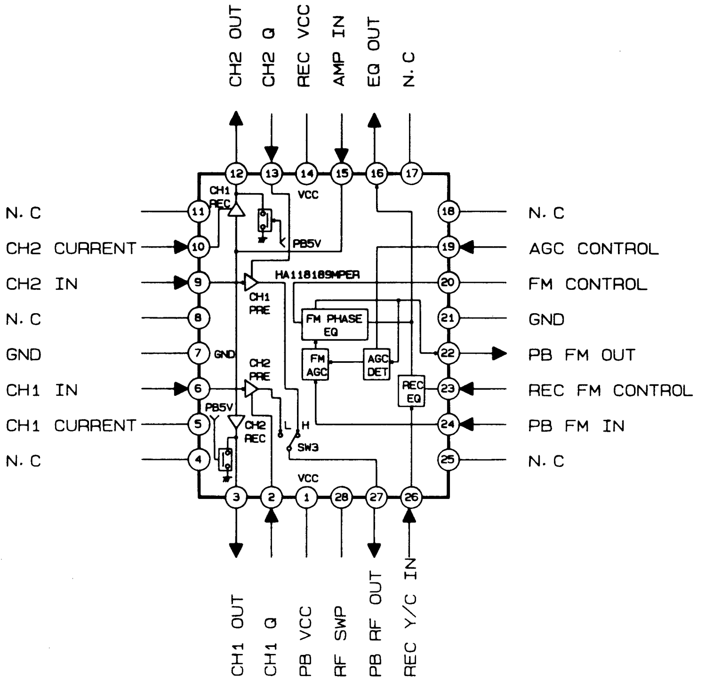
⑦



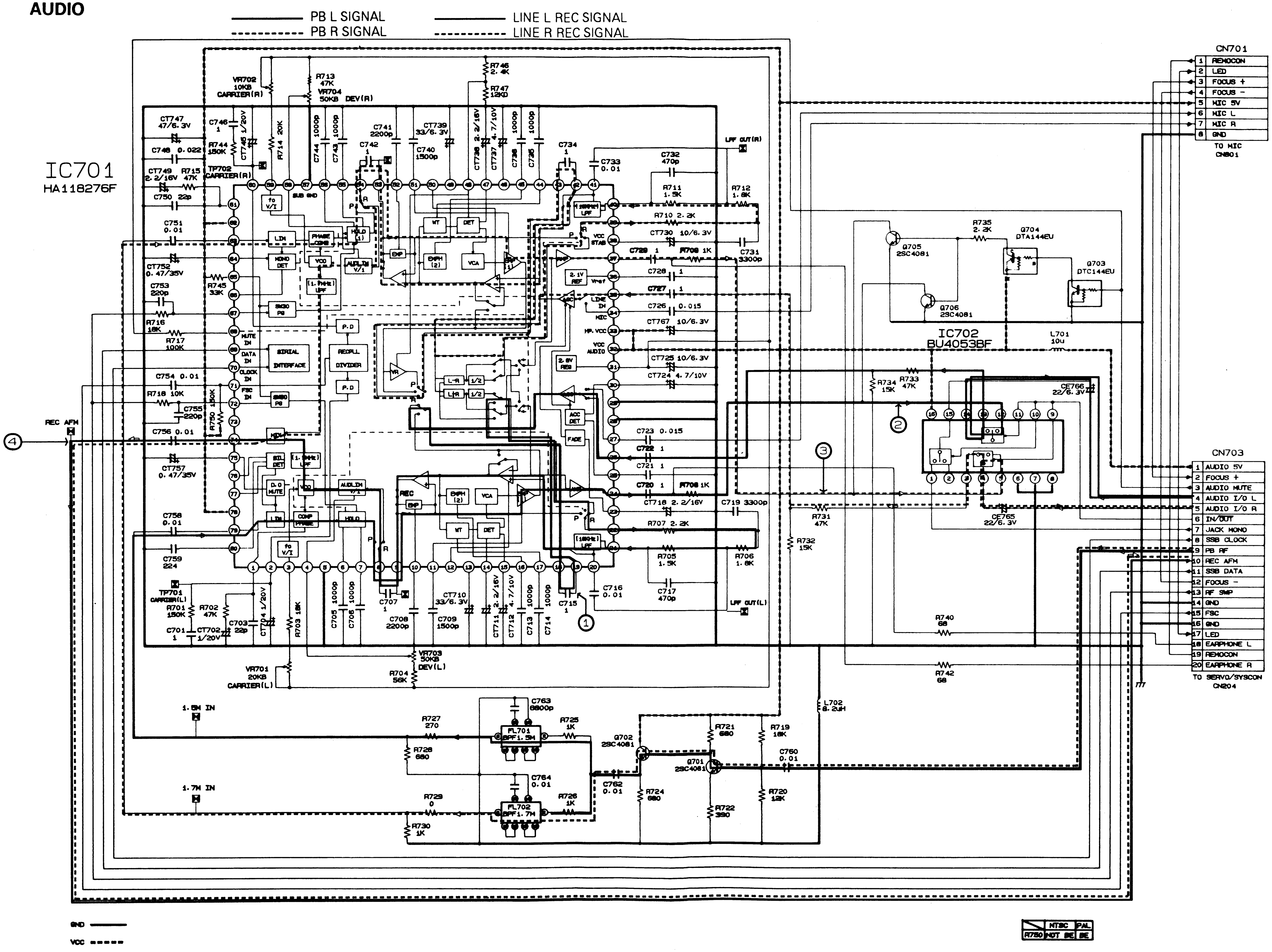
C127
REC MODE
900mVp-p

IC101 (HA118189)		
PIN NO	REC	PLAY
1	5.0	0.0
2	2.3	0.0
3	0.0	4.0
4	0.0	0.0
5	0.0	4.1
6	0.8	0.0
7	0.0	0.0
8	0.8	0.0
9	0.0	0.0
10	2.5	4.1
11	0.0	0.0
12	0.0	4.0
13	2.3	0.0
14	0.0	5.0
15	0.0	1.8
16	2.1	2.4
17	0.0	0.0
18	0.0	0.0
19	1.5	0.0
20	2.1	2.4
21	0.0	0.0
22	2.7	0.0
23	0.0	4.0
24	3.7	0.0
25	0.0	0.0
26	0.0	0.9
27	3.2	0.4
28	–	–

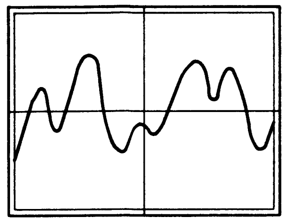
IC101 HA118189MP


CH2 OUT
CH2 Q
REC VCC
AMP IN
EQ OUT
N.C
N.C
CH2 CURRENT
CH2 IN
N.C
GND
CH1 IN
CH1 CURRENT
N.C
N.C
AGC CONTROL
FM CONTROL
GND
PB FM OUT
REC FM CONTROL
PB FM IN
N.C
CH1 OUT
CH1 Q
PB VCC
RF SWP
PB RF OUT
REC Y/C IN
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
CH1 REC
VCC
PB5V
HA118189MPER
CH1 PRE
FM PHASE EQ
FM AGC
AGC DET
GND
CH2 PRE
REC EQ
PB5V
CH2 REC
L
H
SW3
VCC

12-5. AUDIO

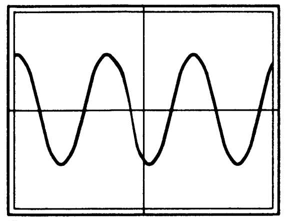

PB L SIGNAL
PB R SIGNAL
LINE L REC SIGNAL
LINE R REC SIGNAL
IC701
HA118276F
IC702
BU4053BF
VR702 10KB CARRIER(R)
R713 47K
VR704 50KB DEV(R)
R746 2.4K
R747 12KΩ
TP702 CARRIER(R)
TP701 CARRIER(L)
VR701 20KB CARRIER(L)
VR703 50KB DEV(L)
R704 56K
REC AFM
LPF OUT(R)
LPF OUT(L)
Q701 2SC4081
Q702 2SC4081
Q703 DTC144EU
Q704 DTA144EU
Q705 2SC4081
Q706 2SC4081
FL701 BPF1.5M
FL702 BPF1.7M
1.5M IN
1.7M IN
L701 10u
L702 8.2uH
CE765 22/6.3V
CE766 22/6.3V
fo V/I
LIM
PHASE COMP
HOLD
MONO DET
VCO
AUDLIM V/I
(1.7MHz) LPF
(1.5MHz) LPF
SW30 PG
SERIAL INTERFACE
MUTE IN
DATA IN
CLOCK IN
FSC IN
REC PLL DIVIDER
P.D
EXP
EMPH (2)
VCA
WT
DET
AMP
VCC STAB
2.1V REF
Vref
LINE IN
MIC
HP.VCC
VCC AUDIO
2.8V REG
L-R
L+R
1/2
ACC DET
FADE
VR
HDL
SIL DET
D.O MUTE
REC
(180kHz) LPF
SUB GND
CN701
1 REMOCON
2 LED
3 FOCUS +
4 FOCUS −
5 MIC 5V
6 MIC L
7 MIC R
8 GND
TO MIC CN801
CN703
1 AUDIO 5V
2 FOCUS +
3 AUDIO MUTE
4 AUDIO I/O L
5 AUDIO I/O R
6 IN/OUT
7 JACK MONO
8 SSB CLOCK
9 PB RF
10 REC AFM
11 SSB DATA
12 FOCUS −
13 RF SWP
14 GND
15 FSC
16 GND
17 LED
18 EARPHONE L
19 REMOCON
20 EARPHONE R
TO SERVO/SYSCON CN204
GND
VCC
NTSC
PAL
R750
NOT BE
BE
①
②
③
④

①



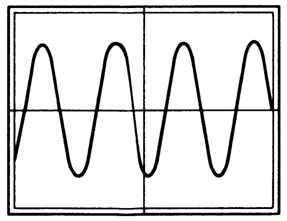
IC701-18, 42
PB MODE
400mVp-p

②



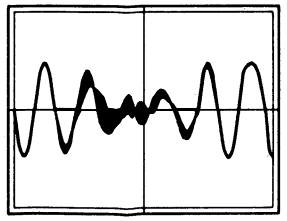
IC701-24
PB MODE
1.0Vp-p

③



IC701-37
PB MODE
1.0Vp-p

④



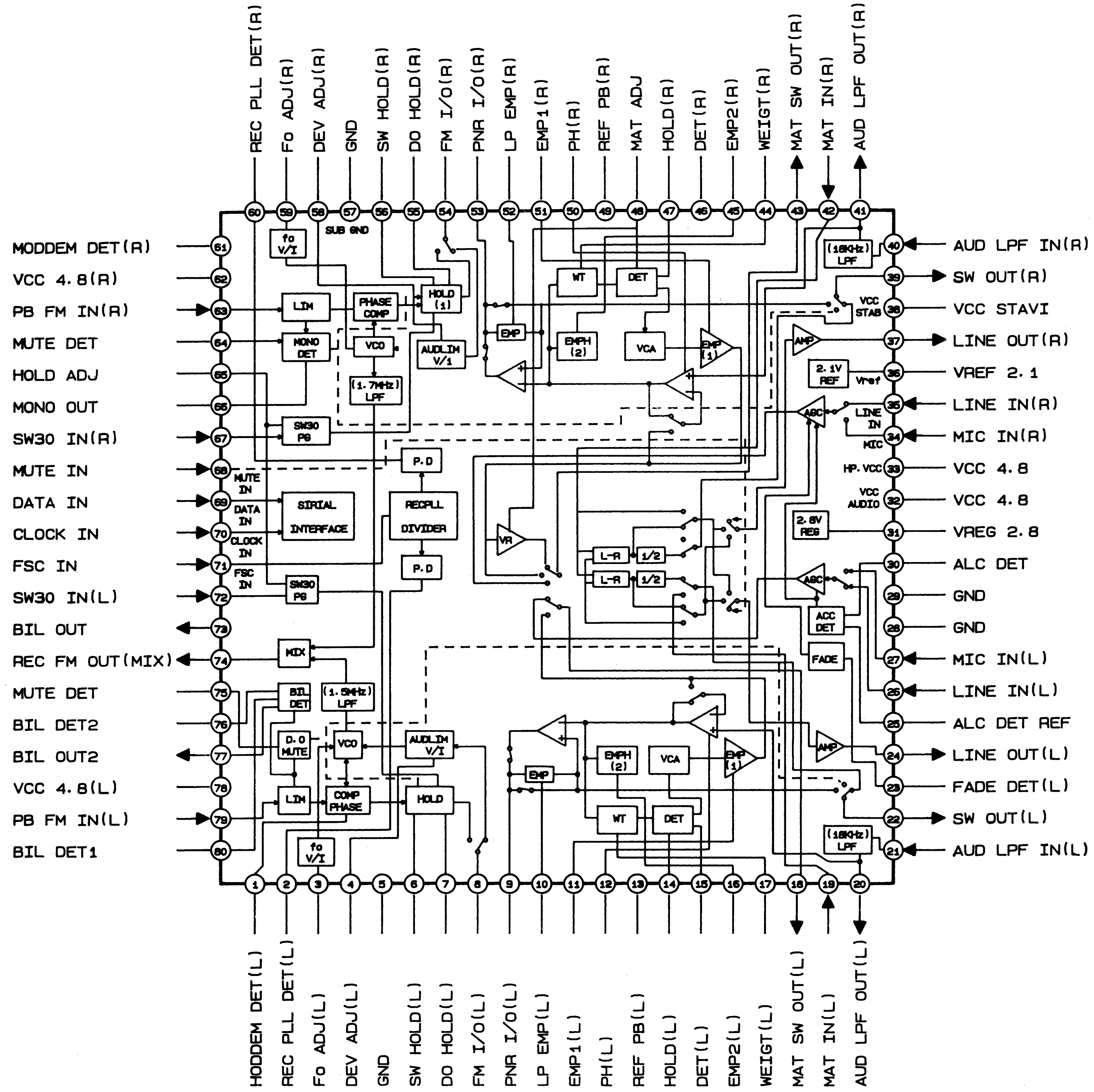
IC701-74
RECMODE
200mVp-p

IC701 (HA118276F)					
PIN NO	REC	PLAY	PIN NO	REC	PLAY
1	0	2.0	41	2.0	2.0
2	2.0	2.0	42	2.0	2.0
3	1.84	1.84	43	2.0	2.0
4	0.7	0.7	44	2.0	2.0
5	0	0	45	2.0	2.0
6	0	2.0	46	0.3	0.3
7	0	2.0	47	0.3	0.3
8	2.0	2.0	48	2.8	2.8
9	2.0	2.0	49	2.0	2.0
10	2.0	2.0	50	2.8	2.8
11	2.0	2.0	51	2.0	2.0
12	2.7	2.7	52	2.0	2.0
13	2.0	2.0	53	2.0	2.0
14	0.25	0.25	54	2.0	2.0
15	0.25	0.25	55	0	2.0
16	2.0	2.0	56	0	2.0
17	2.0	2.0	57	0	0
18	2.0	2.0	58	0.85	0.85
19	2.0	2.0	59	1.74	1.74
20	2.0	2.0	60	1.9	1.9
21	2.0	2.0	61	0	2.0
22	2.0	2.0	62	4.9	4.9
23	0	0	63	2.2	2.0
24	2.4	2.4	64	0.75	0.75
25	2.0	2.0	65	4.9	4.9
26	2.0	2.0	66	0.8	0.8
27	2.0	2.0	67	5.0	5.0
28	0	0	68	0	0
29	0	0	69	3.7	3.7
30	0.4	0.4	70	3.7	3.7
31	2.8	2.8	71	0	0
32	4.8	4.8	72	5.0	5.0
33	4.8	4.8	73	4.4	0.8
34	2.0	2.0	74	2.6	2.6
35	2.0	2.0	75	0.8	0.8
36	2.0	2.0	76	0.8	1.4
37	2.4	2.4	77	4.2	0
38	4.8	4.8	78	4.8	4.8
39	2.0	2.0	79	2.2	2.0
40	2.0	2.0	80	1.4	3.2

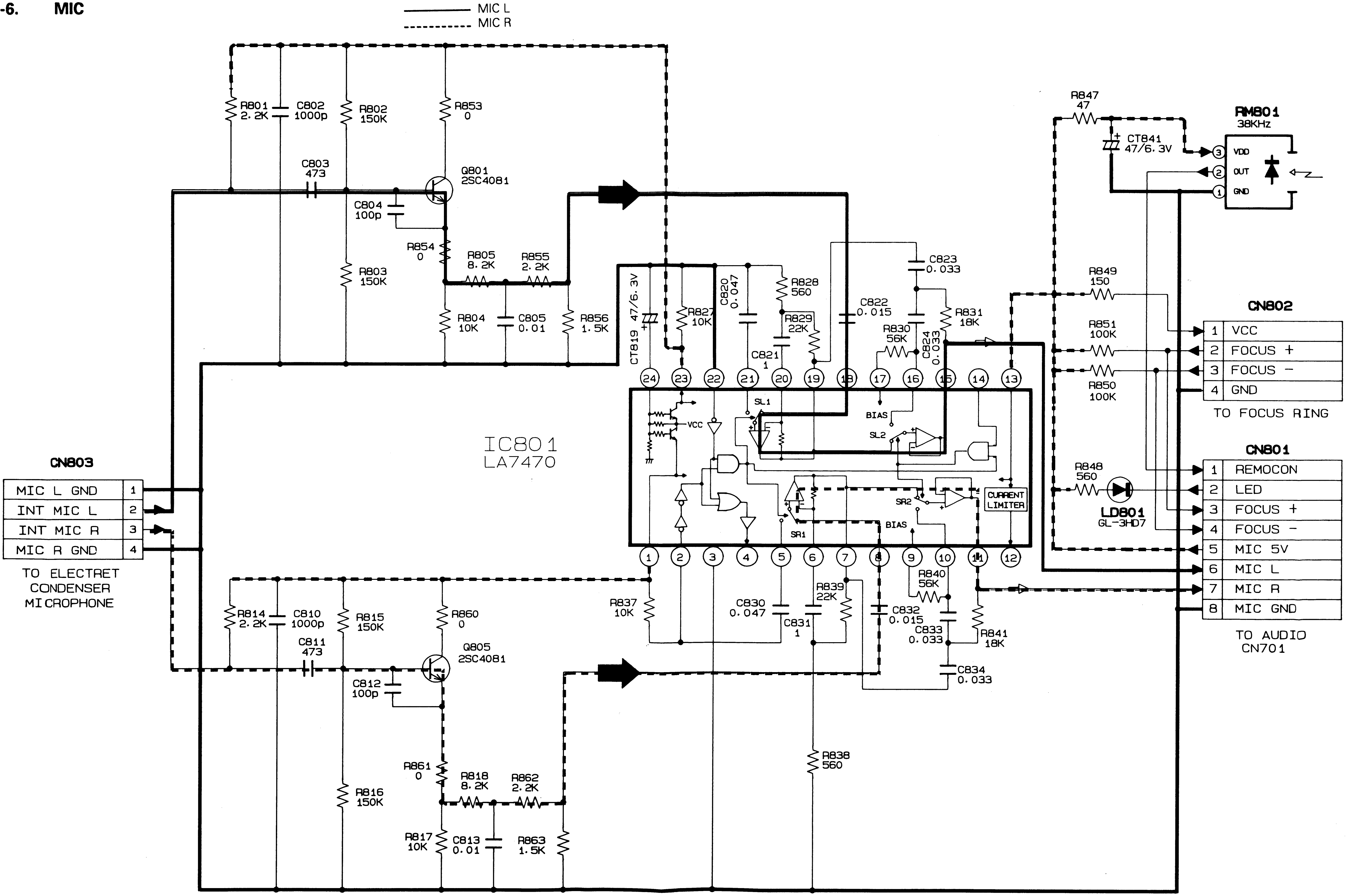
IC702(BU4053BF)		
PIN NO	REC	PLAY
1	0.0V	0.1V
2	0.0V	2.4V
3	0.0V	0.0V
4	0.0V	2.4V
5	2.4V	2.4V
6	0.0V	0.0V
7	0.0V	0.0V
8	0.0V	0.0V
9	5.0V	0.0V
10	5.0V	0.0V
11	5.0V	0.0V
12	2.4V	2.4V
13	0.1V	0.0V
14	0.1V	2.4V
15	0.1V	2.4V
16	4.9V	4.9V

TR NO	PB(REC) MODE		
	E	B	C
Q701	1.2	1.8	3.2
Q702	2.5	3.2	4.8

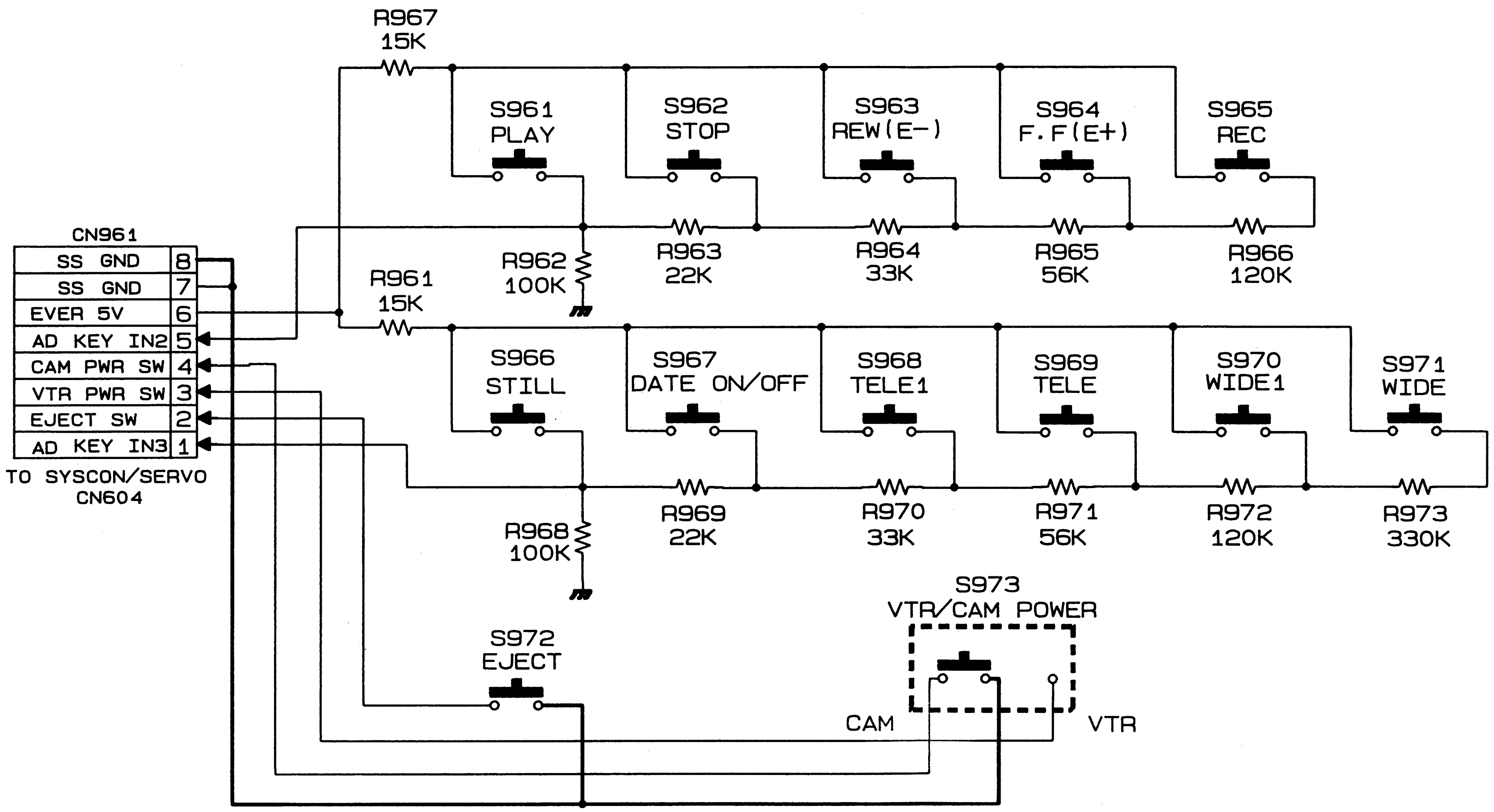
IC701 HA118276F


REC PLL DET(R)
Fo ADJ(R)
DEV ADJ(R)
GND
SW HOLD(R)
DO HOLD(R)
FM I/O(R)
PNR I/O(R)
LP EMP(R)
EMP1(R)
PH(R)
REF PB(R)
MAT ADJ
HOLD(R)
DET(R)
EMP2(R)
WEIGT(R)
MAT SW OUT(R)
MAT IN(R)
AUD LPF OUT(R)
MODDEM DET(R)
VCC 4.8(R)
PB FM IN(R)
MUTE DET
HOLD ADJ
MONO OUT
SW30 IN(R)
MUTE IN
DATA IN
CLOCK IN
FSC IN
SW30 IN(L)
BIL OUT
REC FM OUT(MIX)
MUTE DET
BIL DET2
BIL OUT2
VCC 4.8(L)
PB FM IN(L)
BIL DET1
AUD LPF IN(R)
SW OUT(R)
VCC STAVI
LINE OUT(R)
VREF 2.1
LINE IN(R)
MIC IN(R)
VCC 4.8
VCC 4.8
VREG 2.8
ALC DET
GND
GND
MIC IN(L)
LINE IN(L)
ALC DET REF
LINE OUT(L)
FADE DET(L)
SW OUT(L)
AUD LPF IN(L)
HODDEM DET(L)
REC PLL DET(L)
Fo ADJ(L)
DEV ADJ(L)
GND
SW HOLD(L)
DO HOLD(L)
FM I/O(L)
PNR I/O(L)
LP EMP(L)
EMP1(L)
PH(L)
REF PB(L)
HOLD(L)
DET(L)
EMP2(L)
WEIGT(L)
MAT SW OUT(L)
MAT IN(L)
AUD LPF OUT(L)
fo V/I
SUB GND
LIM
PHASE COMP
HOLD (1)
MONO DET
VCO
AUDLIM V/I
(1.7MHz) LPF
SW30 PG
MUTE IN
DATA IN
CLOCK IN
FSC IN
SIRIAL INTERFACE
P.D
RECPLL DIVIDER
P.D
SW30 PG
MIX
BIL DET
(1.5MHz) LPF
D.O MUTE
VCO
AUDLIM V/I
LIM
COMP PHASE
HOLD
fo V/I
EMP
EMPH (2)
VCA
EMP (1)
WT
DET
(18KHz) LPF
VCC STAB
AMP
2.1V REF
Vref
ABC
LINE IN
MIC
HP.VCC
VCC AUDIO
2.8V REG
VR
L-R
1/2
L-R
1/2
ABC
ACC DET
FADE
EMP
EMPH (2)
VCA
EMP (1)
AMP
WT
DET
(18KHz) LPF

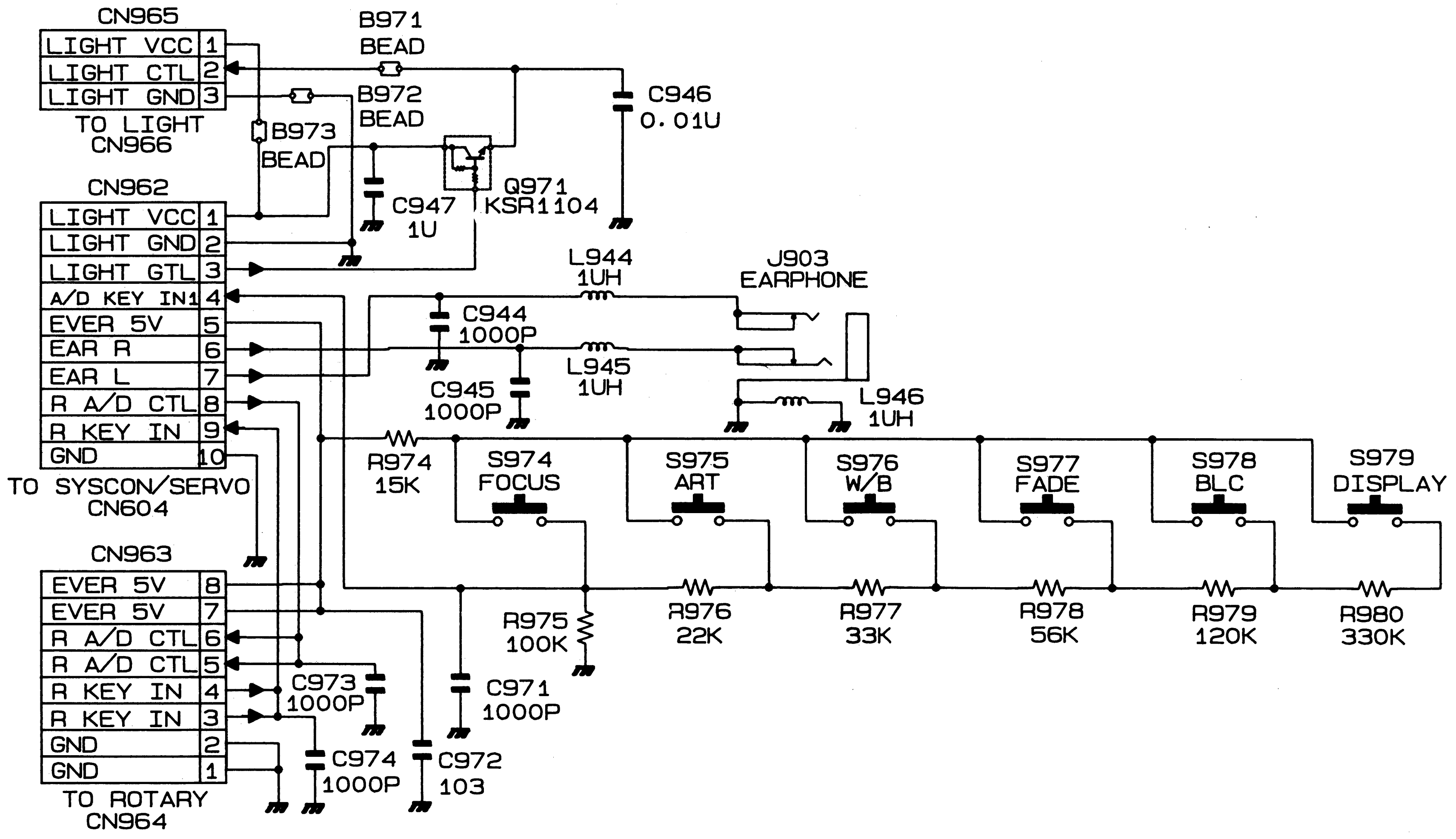
12-6. MIC


MIC L
MIC R
R801 2.2K
C802 1000p
R802 150K
R853 0
C803 473
Q801 2SC4081
C804 100p
R854 0
R805 8.2K
R855 2.2K
R803 150K
R804 10K
C805 0.01
R856 1.5K
CT819 47/6.3V
R827 10K
C820 0.047
R828 560
R829 22K
C821 1
C822 0.015
C823 0.033
R830 56K
C824 0.033
R831 18K
R847 47
RM801 38KHz
CT841 47/6.3V
VDD
OUT
GND
R849 150
R851 100K
R850 100K
CN802
1 VCC
2 FOCUS +
3 FOCUS −
4 GND
TO FOCUS RING
IC801 LA7470
VCC
SL1
BIAS
SL2
SR2
BIAS
SR1
CURRENT LIMITER
CN803
MIC L GND 1
INT MIC L 2
INT MIC R 3
MIC R GND 4
TO ELECTRET CONDENSER MICROPHONE
R848 560
LD801 GL-3HD7
CN801
1 REMOCON
2 LED
3 FOCUS +
4 FOCUS −
5 MIC 5V
6 MIC L
7 MIC R
8 MIC GND
TO AUDIO CN701
R814 2.2K
C810 1000p
R815 150K
R860 0
C811 473
Q805 2SC4081
C812 100p
R837 10K
C830 0.047
C831 1
R839 22K
C832 0.015
R840 56K
C833 0.033
R841 18K
C834 0.033
R838 560
R861 0
R818 8.2K
R862 2.2K
R816 150K
R817 10K
C813 0.01
R863 1.5K
1 2 3 4 5 6 7 8 9 10 11 12
24 23 22 21 20 19 18 17 16 15 14 13

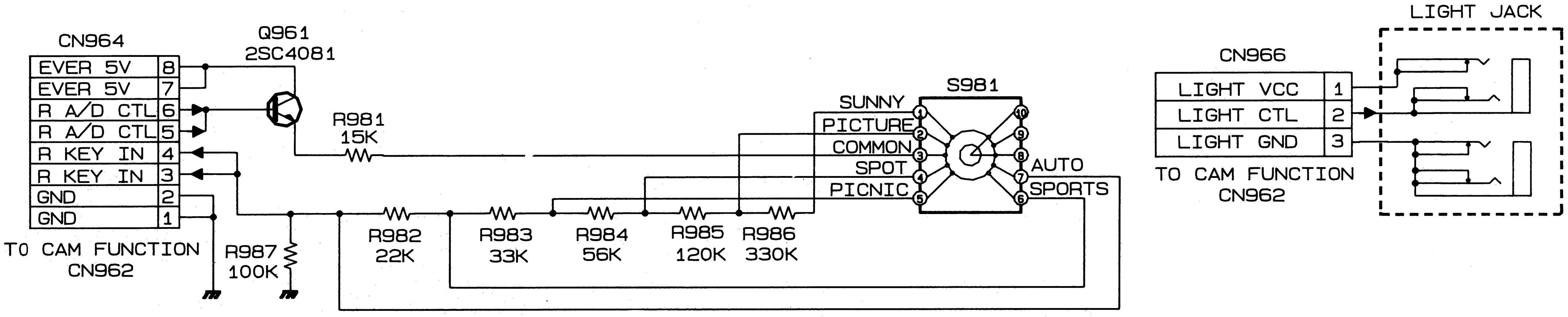
12-7. FUNCTION VCR


R967
15K
S961
PLAY
S962
STOP
S963
REW(E−)
S964
F.F(E+)
S965
REC
CN961
SS GND 8
SS GND 7
EVER 5V 6
AD KEY IN2 5
CAM PWR SW 4
VTR PWR SW 3
EJECT SW 2
AD KEY IN3 1
TO SYSCON/SERVO
CN604
R962
100K
R963
22K
R964
33K
R965
56K
R966
120K
R961
15K
S966
STILL
S967
DATE ON/OFF
S968
TELE1
S969
TELE
S970
WIDE1
S971
WIDE
R968
100K
R969
22K
R970
33K
R971
56K
R972
120K
R973
330K
S973
VTR/CAM POWER
S972
EJECT
CAM
VTR

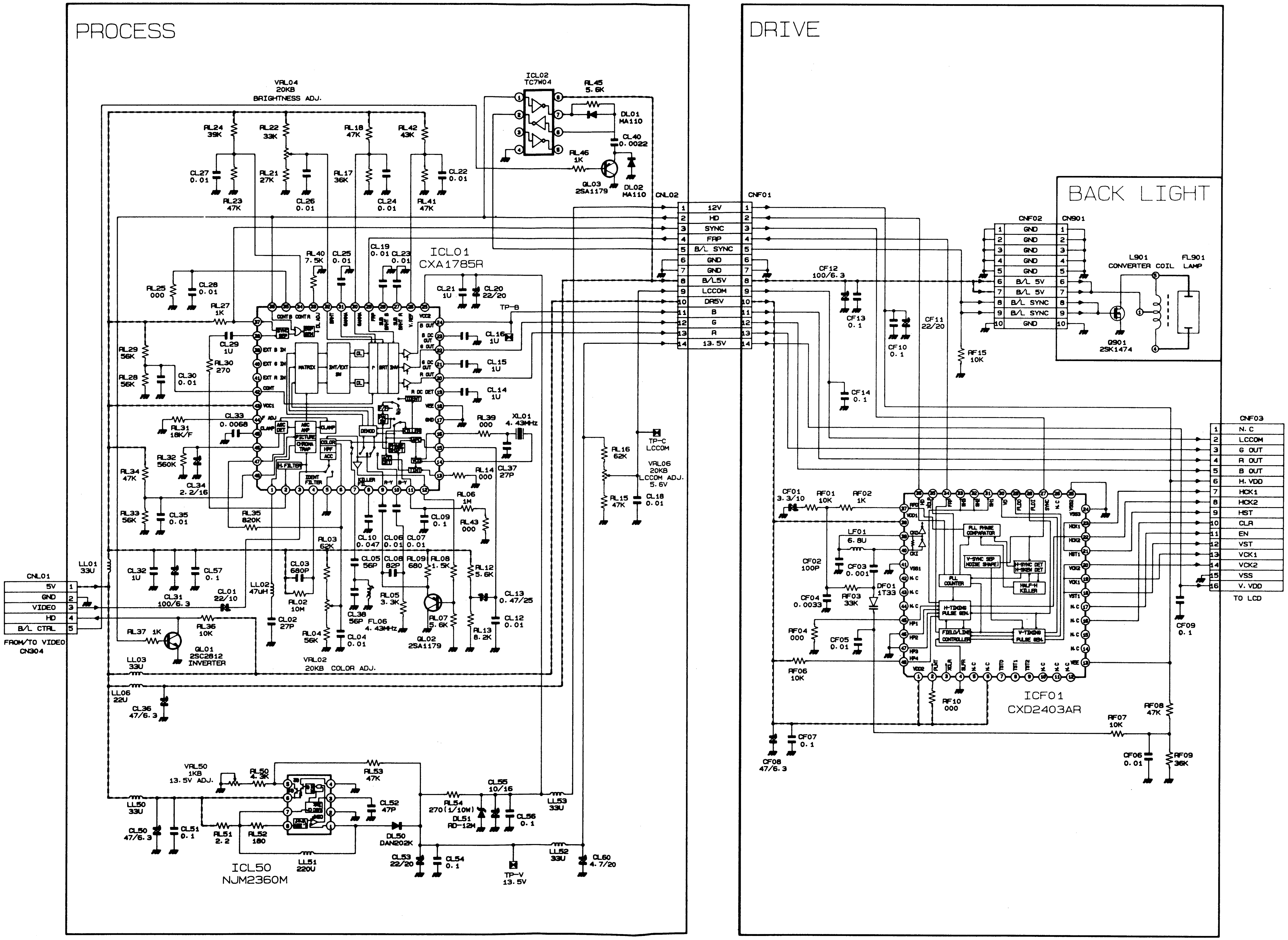
12-8. FUNCTION CAMERA


CN965
LIGHT VCC 1
LIGHT CTL 2
LIGHT GND 3
TO LIGHT
CN966
B971
BEAD
B972
BEAD
B973
BEAD
C946
0.01U
C947
1U
Q971
KSR1104
CN962
LIGHT VCC 1
LIGHT GND 2
LIGHT GTL 3
A/D KEY IN1 4
EVER 5V 5
EAR R 6
EAR L 7
R A/D CTL 8
R KEY IN 9
GND 10
TO SYSCON/SERVO
CN604
L944
1UH
J903
EARPHONE
C944
1000P
L945
1UH
C945
1000P
L946
1UH
R974
15K
S974
FOCUS
S975
ART
S976
W/B
S977
FADE
S978
BLC
S979
DISPLAY
R975
100K
R976
22K
R977
33K
R978
56K
R979
120K
R980
330K
CN963
EVER 5V 8
EVER 5V 7
R A/D CTL 6
R A/D CTL 5
R KEY IN 4
R KEY IN 3
GND 2
GND 1
TO ROTARY
CN964
C973
1000P
C971
1000P
C974
1000P
C972
103

12-9. FUNCTION ROTARY


CN964
EVER 5V 8
EVER 5V 7
R A/D CTL 6
R A/D CTL 5
R KEY IN 4
R KEY IN 3
GND 2
GND 1
TO CAM FUNCTION CN962
Q961 2SC4081
R981 15K
R987 100K
R982 22K
R983 33K
R984 56K
R985 120K
R986 330K
S981
SUNNY
PICTURE
COMMON
SPOT
PICNIC
AUTO
SPORTS
CN966
LIGHT VCC 1
LIGHT CTL 2
LIGHT GND 3
TO CAM FUNCTION CN962
LIGHT JACK

12-10. C.V.F


PROCESS
DRIVE
BACK LIGHT
VRL04 20KB BRIGHTNESS ADJ.
ICL02 TC7W04
RL45 5.6K
DL01 MA110
CL40 0.0022
RL46 1K
QL03 2SA1179
DL02 MA110
ICL01 CXA1785R
XL01 4.43MHz
TP-B
TP-C LCCOM
VRL06 20KB LCCOM ADJ. 5.6V
CNL01
5V
GND
VIDEO
HD
B/L CTRL
FROM/TO VIDEO CN304
QL01 2SC2812 INVERTER
VRL02 20KB COLOR ADJ.
QL02 2SA1179
FL06 4.43MHz
VRL50 1KB 13.5V ADJ.
ICL50 NJM2360M
DL50 DAN202K
DL51 RD-12M
TP-V 13.5V
CNL02
CNF01
12V
HD
SYNC
FRP
B/L SYNC
GND
GND
B/L5V
LCCOM
DR5V
B
G
R
13.5V
CNF02
CN901
B/L 5V
B/L SYNC
L901 CONVERTER COIL
FL901 LAMP
Q901 2SK1474
ICF01 CXD2403AR
LF01 6.8U
DF01 1T33
CNF03
N.C
LCCOM
G OUT
R OUT
B OUT
H.VDD
HCK1
HCK2
HST
CLR
EN
VST
VCK1
VCK2
VSS
V.VDD
TO LCD

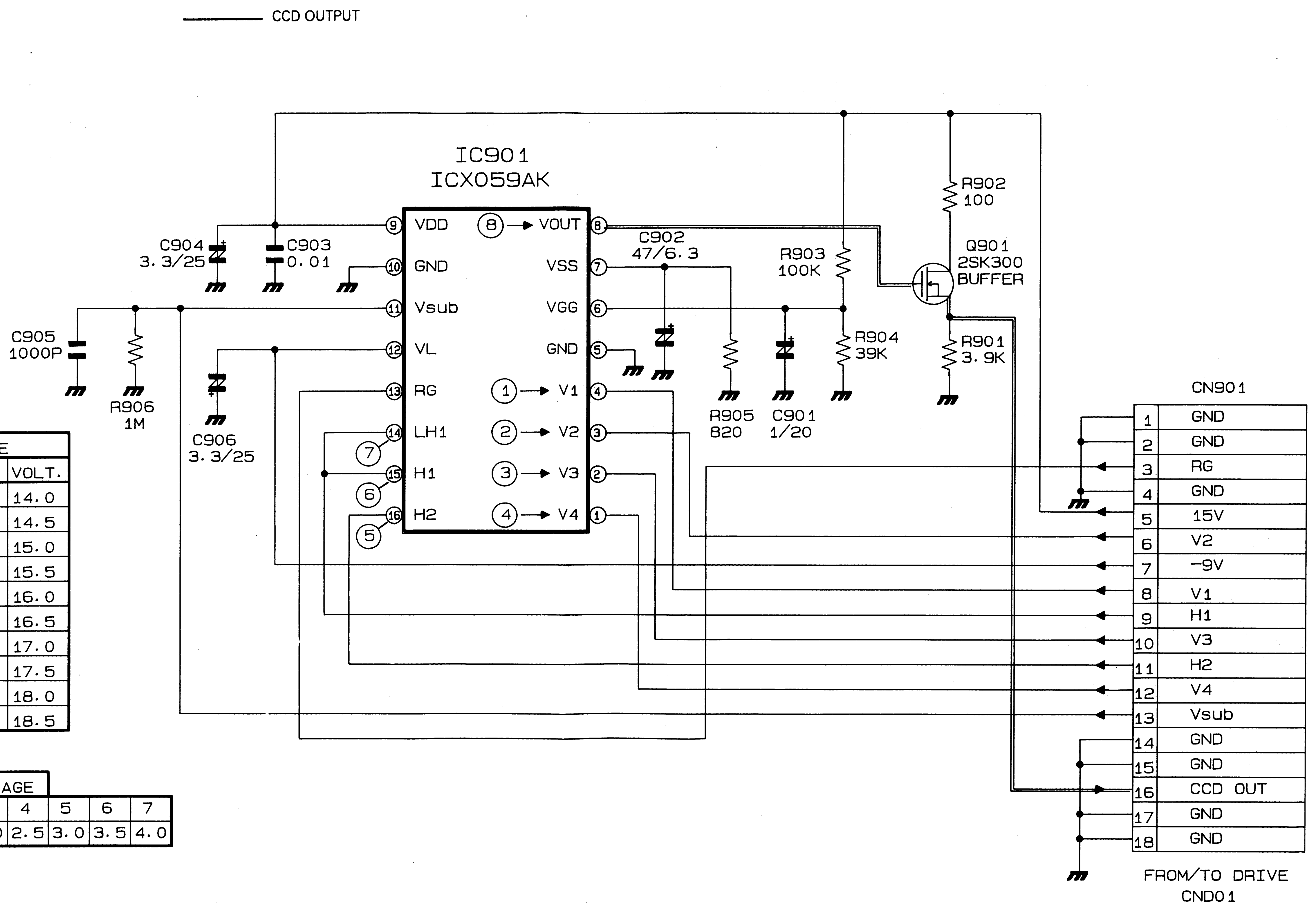
ICL01 (CXA1785R)	
PIN NO	VOLTAGE(DC)
1	2.1
2	4.4
3	2.2
4	2.1
5	0.0
6	3.1
7	N.C
8	0.9
9	N.C
10	N.C
11	1.9
12	N.C
13	3.0
14	4.3
15	2.5
16	3.1
17	0.0
18	0.0
19	2.6
20	6.0
21	2.6
22	6.0
23	2.6
24	6.0
25	12.0
26	2.6
27	2.4
28	2.4
29	2.5
30	2.2
31	2.5
32	2.3
33	1.3
34	2.7
35	2.4
36	0.5
37	0.6
38	2.6
39	N.C
40	N.C
41	N.C
42	2.4
43	5.0
44	1.3
45	1.9
46	2.2
47	1.4
48	2.7

ICL50 (NJM2369M)	
PIN NO	VOLTAGE(DC)
1	4.7
2	0.0
3	0.4
4	0.0
5	1.3
6	5.0
7	4.9
8	4.3

TR NO	E	B	C
QL01	0.0	0.1	4.2
QL02	2.7	2.1	0.0

ICF01 (CXD2403AR)	
PIN NO	VOLTAGE(DC)
1	5.0
2	5.0
3	N.C
4	0.0
5	N.C
6	5.0
7	N.C
8	N.C
9	N.C
10	N.C
11	N.C
12	N.C
13	12.0
14	N.C
15	N.C
16	0.7
17	0.0
18	0.1
19	6.0
20	6.0
21	0.2
22	6.0
23	5.6
24	0.0
25	0.0
26	N.C
27	0.6
28	N.C
29	N.C
30	N.C
31	N.C
32	N.C
33	N.C
34	2.5
35	N.C
36	0.5
37	3.1
38	5.0
39	2.7
40	2.6
41	0.0
42	N.C
43	N.C
44	N.C
45	0.0
46	0.0
47	0.0
48	5.0

12-11. CCD

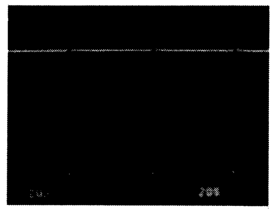

CCD OUTPUT
IC901
ICX059AK
VDD
GND
Vsub
VL
RG
LH1
H1
H2
⑧ → VOUT
VSS
VGG
GND
① → V1
② → V2
③ → V3
④ → V4
⑦
⑥
⑤
C904
3.3/25
C903
0.01
C905
1000P
R906
1M
C906
3.3/25
C902
47/6.3
R903
100K
R904
39K
R905
820
C901
1/20
R902
100
Q901
2SK300
BUFFER
R901
3.9K
CN901
1 GND
2 GND
3 RG
4 GND
5 15V
6 V2
7 −9V
8 V1
9 H1
10 V3
11 H2
12 V4
13 Vsub
14 GND
15 GND
16 CCD OUT
17 GND
18 GND
FROM/TO DRIVE
CND01

VSUB VOLTAGE			
MARK	VOLT.	MARK	VOLT.
E	9.0	Q	14.0
f	9.5	R	14.5
G	10.0	S	15.0
h	10.5	T	15.5
J	11.0	u	16.0
k	11.5	V	16.5
L	12.0	W	17.0
m	12.5	X	17.5
N	13.0	Y	18.0
p	13.5	Z	18.5

RESET GATE VOLTAGE

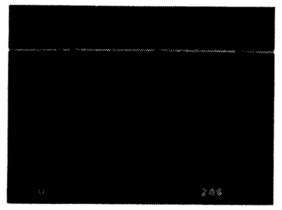
MARK	1	2	3	4	5	6	7
VOLT.	1.0	1.5	2.0	2.5	3.0	3.5	4.0

①



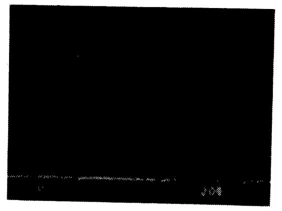
IC901-4
V1

②



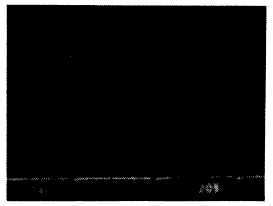
IC901-3
V2

③



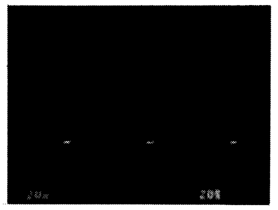
IC901-2
V3

④



IC901-1
V4

⑤

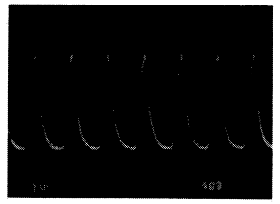


IC901-16
H2

⑥

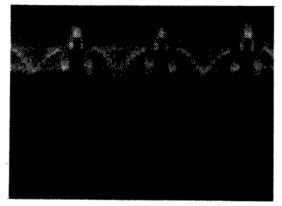
IC901-15
H1

⑦



IC901-13
RG

⑧



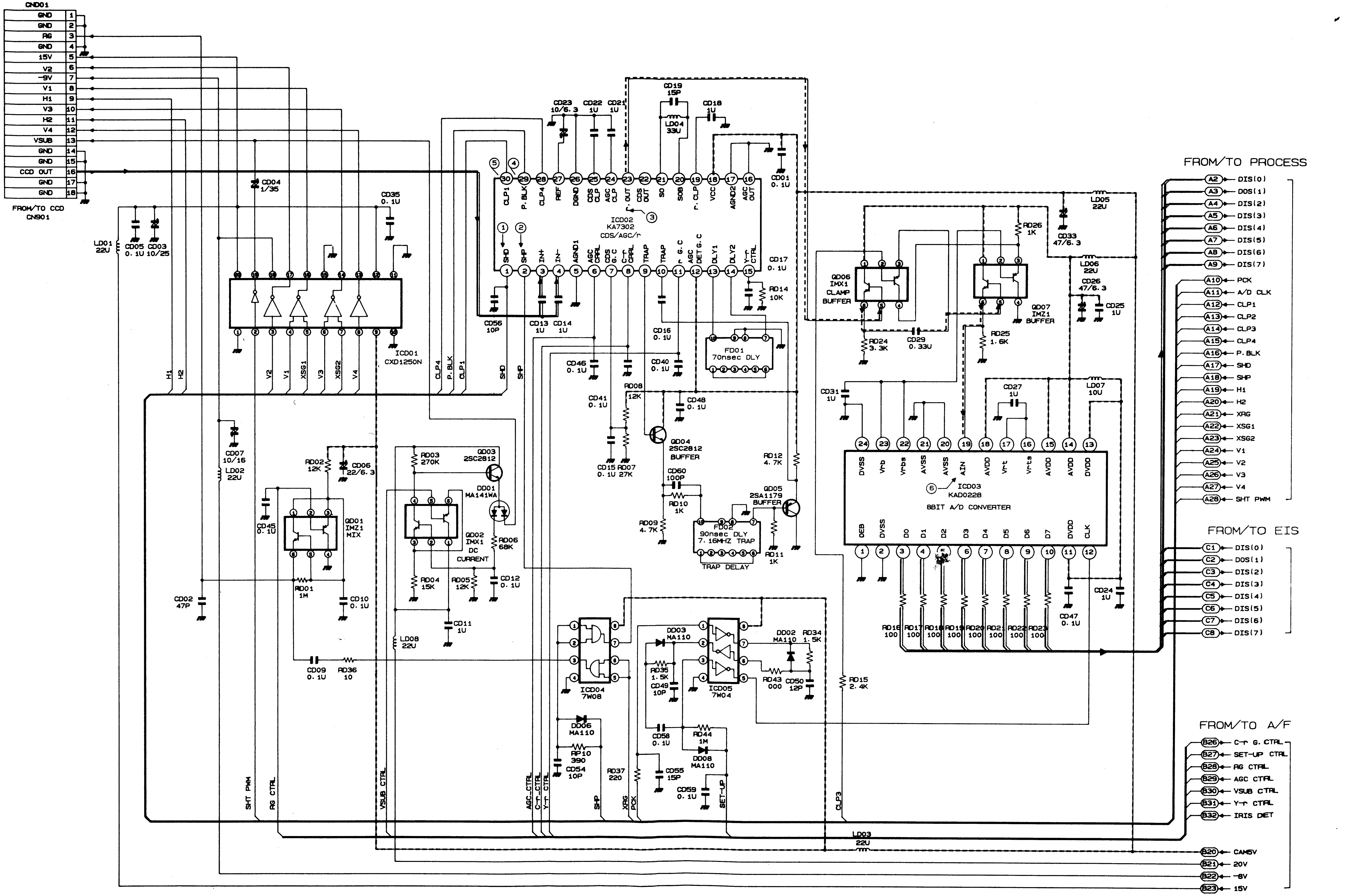
IC901-8
CCD OUT

IC901	**(ICX059AK)**
PIN NO	VOLTAGE(DC)
1	-9.0
2	-9.0
3	-0.3
4	-0.3
5	0.0
6	4.3
7	3.3
8	8.9
9	15.0
10	0.0
11	0.0
12	12.0
13	3.5
14	2.3
15	2.3
16	2.3

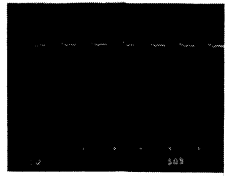
TR NO	E	B	C
Q901	10.0	8.9	14.7

12-12. DRIVE

———— CCD OUTPUT
- - - - - γ OUTPUT
———— A/D CONVERTER OUTPUT


CND01
GND 1
GND 2
RG 3
GND 4
15V 5
V2 6
-9V 7
V1 8
H1 9
V3 10
H2 11
V4 12
VSUB 13
GND 14
GND 15
CCD OUT 16
GND 17
GND 18
FROM/TO CCD CN901
LD01 22U
CD05 0.1U
CD03 10/25
CD04 1/35
CD35 0.1U
ICD01 CXD1250N
H1 H2 V2 V1 XSG1 V3 XSG2 V4
CLP4 P.BLK CLP1 SHD SHP
CD23 10/6.3
CD22 1U
CD21 1U
CD19 15P
LD04 33U
CD18 1U
CD01 0.1U
ICD02 KA7302 CDS/AGC/γ
CLP1 P.BLK CLP4 REF DGND CDS CLP AGC CLP OUT CDS OUT SO SOB γ.CLP VCC AGND2 AGC OUT
SHD SHP IN+ IN- AGND1 AGC CNRL CDS G.C C-γ CNRL TRAP TRAP γ.G.C AGC DET G.C DLY1 DLY2 Y-γ CTRL
CD17 0.1U
RD14 10K
CD56 10P
CD13 1U
CD14 1U
CD16 0.1U
CD46 0.1U
CD40 0.1U
FD01 70nsec DLY
RD08 12K
CD41 0.1U
CD48 0.1U
QD04 2SC2812 BUFFER
CD15 0.1U
RD07 27K
CD60 100P
RD10 1K
RD09 4.7K
FD02 90nsec DLY 7.16MHZ TRAP
TRAP DELAY
QD05 2SA1179 BUFFER
RD12 4.7K
RD11 1K
CD07 10/16
LD02 22U
RD02 12K
CD06 22/6.3
CD45 0.1U
QD01 IMZ1 MIX
RD01 1M
CD10 0.1U
CD02 47P
RD03 270K
QD03 2SC2812
DD01 MA141WA
QD02 IMX1 DC CURRENT
RD06 68K
RD04 15K
RD05 12K
CD12 0.1U
CD11 1U
LD08 22U
CD09 0.1U
RD36 10
ICD04 7W08
DD03 MA110
RD35 1.5K
CD49 10P
ICD05 7W04
DD02 MA110
RD34 1.5K
RD43 000
CD50 12P
DD06 MA110
RP10 390
CD54 10P
RD37 220
CD58 0.1U
RD44 1M
DD08 MA110
CD55 15P
CD59 0.1U
RD15 2.4K
SHT PWM
RG CTRL
VSUB CTRL
AGC CTRL
C-γ CTRL
Y-γ CTRL
SHP
XRG
PCK
SET-UP
CLP3
LD03 22U
LD05 22U
RD26 1K
CD33 47/6.3
QD06 IMX1 CLAMP BUFFER
QD07 IMZ1 BUFFER
LD06 22U
CD26 47/6.3
CD25 1U
RD24 3.3K
CD29 0.33U
RD25 1.6K
CD31 1U
CD27 1U
LD07 10U
ICD03 KAD0228 8BIT A/D CONVERTER
DVSS Vrb Vrbs AVSS AVSS AIN AVDD Vrt Vrts AVDD AVDD DVDD
OEB DVSS D0 D1 D2 D3 D4 D5 D6 D7 DVDD CLK
CD47 0.1U
CD24 1U
RD16 100
RD17 100
RD18 100
RD19 100
RD20 100
RD21 100
RD22 100
RD23 100
FROM/TO PROCESS
A2 DIS(0)
A3 DOS(1)
A4 DIS(2)
A5 DIS(3)
A6 DIS(4)
A7 DIS(5)
A8 DIS(6)
A9 DIS(7)
A10 PCK
A11 A/D CLK
A12 CLP1
A13 CLP2
A14 CLP3
A15 CLP4
A16 P.BLK
A17 SHD
A18 SHP
A19 H1
A20 H2
A21 XRG
A22 XSG1
A23 XSG2
A24 V1
A25 V2
A26 V3
A27 V4
A28 SHT PWM
FROM/TO EIS
C1 DIS(0)
C2 DOS(1)
C3 DIS(2)
C4 DIS(3)
C5 DIS(4)
C6 DIS(5)
C7 DIS(6)
C8 DIS(7)
FROM/TO A/F
B26 C-γ G. CTRL
B27 SET-UP CTRL
B28 RG CTRL
B29 AGC CTRL
B30 VSUB CTRL
B31 Y-γ CTRL
B32 IRIS DET
B20 CAM5V
B21 20V
B22 -8V
B23 15V

①

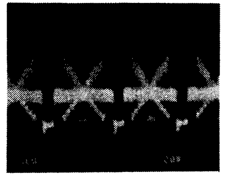


ICD02-1
SHD

②

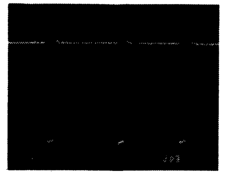
ICD02-2
SHP

③



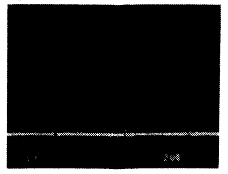
ICD02-23
GAMMA OUT

④



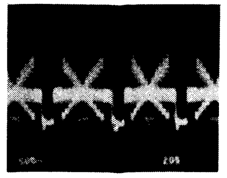
ICD02-29
P. BLK

⑤



ICD02-30
CLP1

⑥



ICD03-19
A/D CONV. IN

ICD01 (CXD1250N)	
PIN NO	VOLTAGE(DC)
1	0.0
2	4.4
3	2.3
4	2.3
5	4.8
6	2.3
7	4.9
8	2.3
9	5.0
10	0.0
11	0.0
12	14.9
13	4.4
14	4.4
15	0.0
16	3.4
17	3.4
18	-9.5
19	-9.5
20	14.9

ICD02 (KA7302)	
PIN NO	VOLTAGE(DC)
1	3.4
2	3.2
3	3.0
4	3.0
5	0.0
6	2.3
7	3.5
8	0.5
9	1.9
10	2.3
11	4.0
12	5.0
13	2.0
14	2.0
15	0.0
16	2.7
17	0.0
18	5.0
19	2.4
20	2.2
21	2.2
22	1.8
23	2.2
24	2.4
25	2.4
26	0.0
27	1.7
28	2.0
29	3.0
30	2.0

ICD03 (KAD0228)	
PIN NO	VOLTAGE(DC)
1	0.0
2	0.0
3	2.9
4	2.9
5	2.9
6	2.9
7	2.9
8	2.9
9	2.9
10	2.9
11	5.0
12	2.6
13	5.0
14	5.0
15	5.0
16	2.7
17	2.7
18	5.0
19	1.3
20	0.0
21	0.0
22	0.6
23	0.6
24	0.0

ICD04 (TC7W08)	
PIN NO	VOLTAGE(DC)
1	2.6
2	2.6
3	2.0
4	0.0
5	2.0
6	2.0
7	2.6
8	4.9

ICD05 (TC7W04)	
PIN NO	VOLTAGE(DC)
1	2.4
2	2.6
3	0.0
4	0.0
5	4.9
6	3.6
7	2.9
8	4.9

TR NO	E	B	C
QD03	14.0	14.7	20.0
QD04	1.4	1.9	5.0
QD05	0.0	1.8	2.3
QD09	2.5	2.5	0.0
QD10	2.0	2.8	5.0

QD01 (IMZ1)	
PIN NO	VOLTAGE(DC)
1	3.6
2	3.0
3	3.6
4	0.0
5	3.6
6	3.0

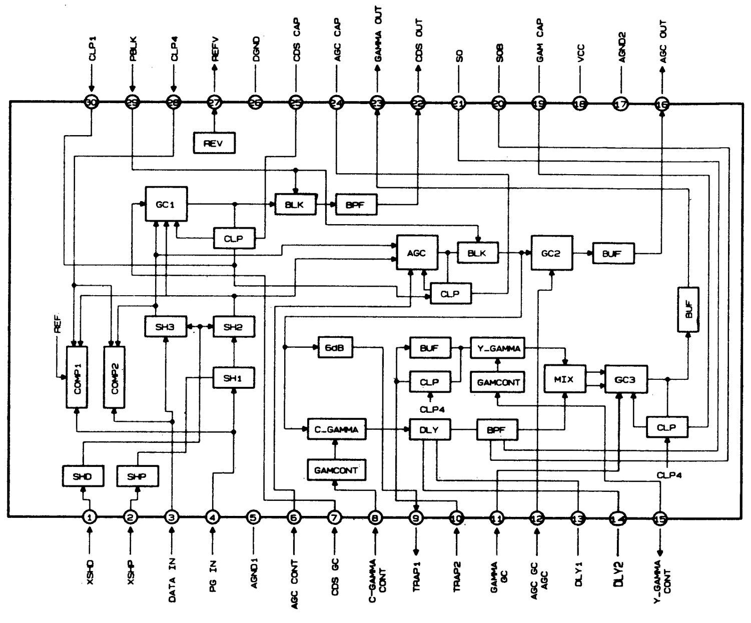
QD02 (IMX1)	
PIN NO	VOLTAGE(DC)
1	20.0
2	2.0
3	1.4
4	14.7
5	2.0
6	1.4

QD08 (IMZ1)	
PIN NO	VOLTAGE(DC)
1	5.0
2	2.0
3	2.5
4	0.0
5	2.5
6	1.9

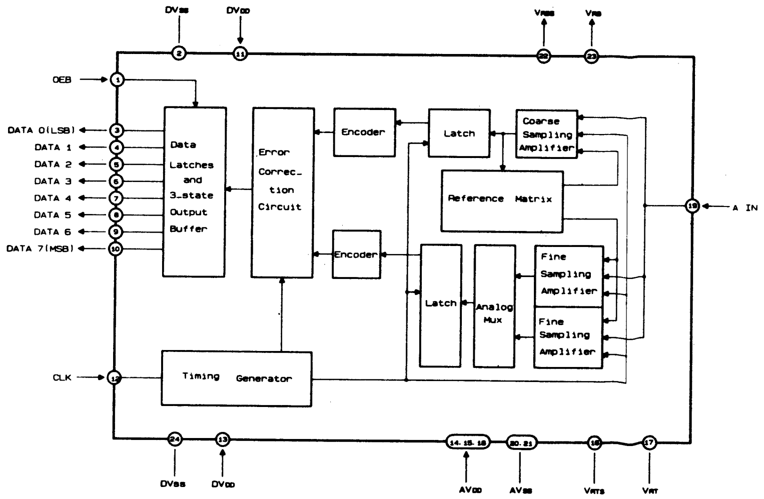
QD06 (IMX1)	
PIN NO	VOLTAGE(DC)
1	5.0
2	0.7
3	1.8
4	1.3
5	2.2
6	1.7

QD07 (IMZ1)	
PIN NO	VOLTAGE(DC)
1	5.0
2	0.6
3	1.3
4	0.0
5	1.9
6	1.3

ICD02 KA7302


CLP1
PBLK
CLP4
REFV
DGND
CDS CAP
AGC CAP
GAMMA OUT
CDS OUT
SO
SOB
GAM CAP
VCC
AGND2
AGC OUT
REV
GC1
BLK
BPF
CLP
AGC
GC2
BUF
SH3
SH2
SH1
REF
COMP1
COMP2
6dB
Y_GAMMA
GAMCONT
MIX
GC3
C_GAMMA
DLY
CLP4
SHD
SHP
XSHD
XSHP
DATA IN
PG IN
AGND1
AGC CONT
CDS GC
C-GAMMA CONT
TRAP1
TRAP2
GAMMA GC
AGC GC AGC
DLY1
DLY2
Y_GAMMA CONT

ICD03 KD0228


DVss
DVDD
VRBS
VRB
OEB
DATA 0(LSB)
DATA 1
DATA 2
DATA 3
DATA 4
DATA 5
DATA 6
DATA 7(MSB)
Data Latches and 3_state Output Buffer
Error Correc_tion Circuit
Encoder
Latch
Coarse Sampling Amplifier
Reference Matrix
Fine Sampling Amplifier
Analog Mux
Timing Generator
CLK
A IN
14. 15. 18
20. 21
AVDD
AVss
VRTS
VRT

12-13. A/F

The schematic diagram of "A/F" is on page 12-31

ICA01 (UPD78214)

PIN NO	VOLTAGE(DC)
1	4.9
2	0.0
3	0.0
4	0.2
5	5.0
6	5.0
7	3.2
8	2.6
9	0.0
10	3.5
11	3.5
12	3.5
13	3.5
14	3.5
15	3.5
16	3.0
17	0.0
18	0.6
19	0.6
20	0.6
21	0.6
22	0.6
23	0.0
24	0.0
25	2.8
26	2.8
27	2.8
28	4.8
29	3.8
30	4.9
31	3.1
32	3.5
33	5.0
34	5.0
35	3.8
36	4.9

ICA01 (UPD78214)

PIN NO	VOLTAGE(DC)
37	0.0
38	3.8
39	3.8
40	5.0
41	5.0
42	0.0
43	3.0
44	0.0
45	0.0
46	0.0
47	0.9
48	0.7
49	0.1
50	5.0
51	0.0
52	0.0
53	0.0
54	0.0
55	0.0
56	0.0
57	0.0
58	0.0
59	5.0
61	3.8
60	3.8
62	3.8
63	0.0
64	5.0

ICA02 (X24C01)

PIN NO	VOLTAGE(DC)
1	0.0
2	0.0
3	0.0
4	0.0
5	2.6
6	2.6
7	0.0
8	0.1

ICA03 (MB88346)

PIN NO	VOLTAGE(DC)
1	0.0
2	2.7
3	2.0
4	2.3
5	1.7
6	0.2
7	3.0
8	0.2
9	0.1
10	5.0
11	5.0
12	2.4
13	3.5
14	2.5
15	0.0
16	1.0
17	2.8
18	4.8
19	4.8
20	0.0

ICA04 (TB6504)

PIN NO	VOLTAGE(DC)
1	0.0
2	4.9
3	4.9
4	0.0
5	0.0
6	0.0
7	4.9
8	2.6
9	0.0
10	0.0
11	0.5
12	3.5
13	1.7
14	0.2
15	0.0
16	0.5
17	0.0
18	0.0
19	0.6
20	4.9
21	0.0
22	2.0
23	0.6
24	4.9

ICA05 (TB6504)

PIN NO	VOLTAGE(DC)
1	0.0
2	4.9
3	4.9
4	0.0
5	0.0
6	0.0
7	4.9
8	2.6
9	2.6
10	0.0
11	0.2
12	0.3
13	1.7
14	1.5
15	0.0
16	0.1
17	0.0
18	0.0
19	0.0
20	4.9
21	0.0
22	2.0
23	0.6
24	4.9

ICA06 (NJM3403)

PIN NO	VOLTAGE(DC)
1	2.0
2	2.0
3	2.0
4	4.9
5	1.9
6	1.9
7	1.9
8	0.7
9	1.9
10	1.9
11	0.0
12	0.0
13	0.0
14	0.0

ICA07 (NJM3414)

PIN NO	VOLTAGE(DC)
1	2.9
2	2.9
3	2.9
4	0.0
5	1.9
6	1.9
7	4.0
8	4.9

TR NO	E	B	C
QA01	0.0	0.2	0.0
QA02	5.0	5.0	0.1
QA03	4.9	4.2	4.9
QA04	0.0	0.0	3.5
QA06	0.0	4.3	0.0
QA07	0.0	4.3	0.0
QA12	2.2	2.8	3.7

QA08 (IMZ1)

PIN NO	VOLTAGE(DC)
1	4.9
2	1.4
3	1.9
4	0.0
5	2.0
6	1.4

QA09 (IMZ1)

PIN NO	VOLTAGE(DC)
1	4.9
2	1.9
3	2.5
4	0.0
5	2.5
6	1.9

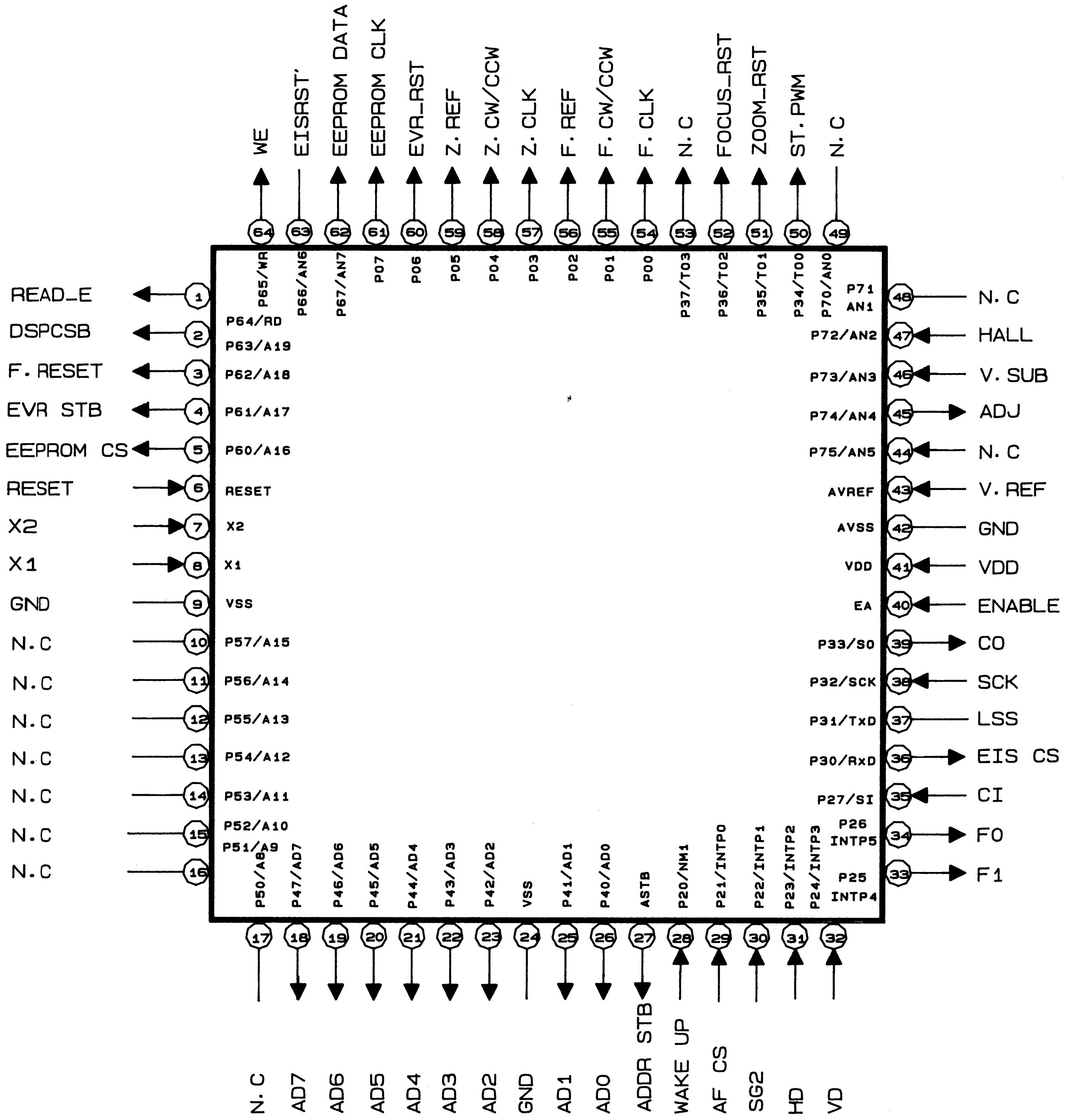
QA10 (IMZ1)

PIN NO	VOLTAGE(DC)
1	4.9
2	1.2
3	1.8
4	0.0
5	1.8
6	1.2

QA11 (IMT1)

PIN NO	VOLTAGE(DC)
1	4.2
2	3.7
3	4.3
4	3.7
5	3.7
6	4.3

ICA01 uPD78214GC


64 P65/WR WE
63 P66/AN6 EISRST'
62 P67/AN7 EEPROM DATA
61 P07 EEPROM CLK
60 P06 EVR_RST
59 P05 Z. REF
58 P04 Z. CW/CCW
57 P03 Z. CLK
56 P02 F. REF
55 P01 F. CW/CCW
54 P00 F. CLK
53 P37/TO3 N. C
52 P36/TO2 FOCUS_RST
51 P35/TO1 ZOOM_RST
50 P34/TO0 ST. PWM
49 P70/AN0 N. C
1 P64/RD READ_E
2 P63/A19 DSPCSB
3 P62/A18 F. RESET
4 P61/A17 EVR STB
5 P60/A16 EEPROM CS
6 RESET RESET
7 X2 X2
8 X1 X1
9 VSS GND
10 P57/A15 N.C
11 P56/A14 N.C
12 P55/A13 N.C
13 P54/A12 N.C
14 P53/A11 N.C
15 P52/A10 N.C
16 P51/A9 N.C
17 P50/A8 N.C
18 P47/AD7 AD7
19 P46/AD6 AD6
20 P45/AD5 AD5
21 P44/AD4 AD4
22 P43/AD3 AD3
23 P42/AD2 AD2
24 VSS GND
25 P41/AD1 AD1
26 P40/AD0 AD0
27 ASTB ADDR STB
28 P20/NMI WAKE UP
29 P21/INTP0 AF CS
30 P22/INTP1 SG2
31 P23/INTP2 HD
32 P24/INTP3 VD
48 P71 AN1 N. C
47 P72/AN2 HALL
46 P73/AN3 V. SUB
45 P74/AN4 ADJ
44 P75/AN5 N. C
43 AVREF V. REF
42 AVSS GND
41 VDD VDD
40 EA ENABLE
39 P33/SO CO
38 P32/SCK SCK
37 P31/TxD LSS
36 P30/RxD EIS CS
35 P27/SI CI
34 P26 INTP5 FO
33 P25 INTP4 F1

12-14. PROCESS

The schematic diagram of "PROCESS" is on page 12-32

ICP01 (KS7301)

PIN NO	VOLTAGE(DC)
1	2.7
2	2.8
3	2.8
4	4.8
5	0.0
6	0.0
7	4.8
8	0.0
9	0.0
10	0.0
11	0.0
12	0.0
13	0.0
14	2.6
15	2.1
16	2.2
17	2.1
18	2.2
19	3.0
20	3.3
21	0.0
22	3.3
23	3.3
24	2.5
25	2.2
26	4.9
27	4.9
28	3.4
29	2.3
30	2.3
31	3.2
32	3.3
33	4.9
34	0.0
35	2.2
36	2.5
37	4.9
38	4.9
39	4.9
40	4.9

ICP01 (KS7301)

PIN NO	VOLTAGE(DC)
41	0.0
42	0.0
43	4.9
44	0.0
45	0.0
46	0.0
47	4.9
48	4.6
49	4.9
50	4.9
51	0.0
52	0.0
53	4.7
54	4.6
55	0.1
56	5.0
57	3.7
58	5.0
59	0.6
61	0.6
60	0.6
62	0.6
63	0.6
64	0.6
65	0.6
66	0.0
67	0.6
68	0.0
69	0.0
70	0.0
71	0.0
72	0.0
73	0.0
74	1.9
75	4.9
76	4.9
77	4.9
78	4.9
79	0.0
80	0.0

ICP01 (KS7301)

PIN NO	VOLTAGE(DC)
81	4.9
82	0.0
83	0.0
84	0.0
85	0.0
86	0.0
87	0.0
88	0.0
89	0.0
90	0.0
91	0.0
92	0.0
93	0.0
94	0.0
95	0.0
96	0.0
97	0.0
98	0.0
99	0.0
100	0.0
101	0.0
102	0.0
103	0.0
104	0.0
105	0.0
106	0.0
107	0.0
108	0.0
109	2.5
110	2.8
111	3.3
112	3.1
113	4.9
114	2.8
115	2.8
116	2.8
117	2.8
118	2.8
119	2.8
120	0.0

ICP01 (KS7301)

PIN NO	VOLTAGE(DC)
121	2.8
122	2.8
123	2.8
124	2.8
125	2.8
126	2.8
127	2.8
128	2.8
129	2.8
130	2.8
131	4.9
132	2.9
133	0.0
134	0.0
135	3.1
136	3.5
137	0.3
138	4.9
139	4.9
140	2.5
141	5.0
142	2.5
143	2.8
144	2.8
145	2.8
146	2.8
148	2.8
147	2.8
149	2.8
150	2.8
151	4.8
152	2.9
153	2.9
154	0.0
155	2.9
156	2.9
157	2.9
158	2.9
159	2.9
160	2.9

ICP02 (KDA0408)

PIN NO	VOLTAGE(DC)
1	4.0
2	0.0
3	4.0
4	0.0
5	4.6
6	0.0
7	4.4
8	0.0
9	4.0
10	5.0
11	5.0
12	0.0
13	0.0
14	0.0
15	0.0
16	0.0
17	0.0
18	0.0
19	0.0
20	0.0
21	0.0
22	2.7
23	2.9
24	0.0
25	2.8
26	2.8
27	2.8
28	2.8
29	2.8
30	2.8
31	2.8
32	2.8
33	2.8
34	2.8
35	2.8
36	2.8

ICP02 (KDA0408)

PIN NO	VOLTAGE(DC)
37	0.0
38	2.7
39	2.7
40	2.7
41	2.3
42	0.0
43	0.0
44	5.0
45	2.6
46	5.0
47	4.0
48	0.0

ICP03 (TC4S66)

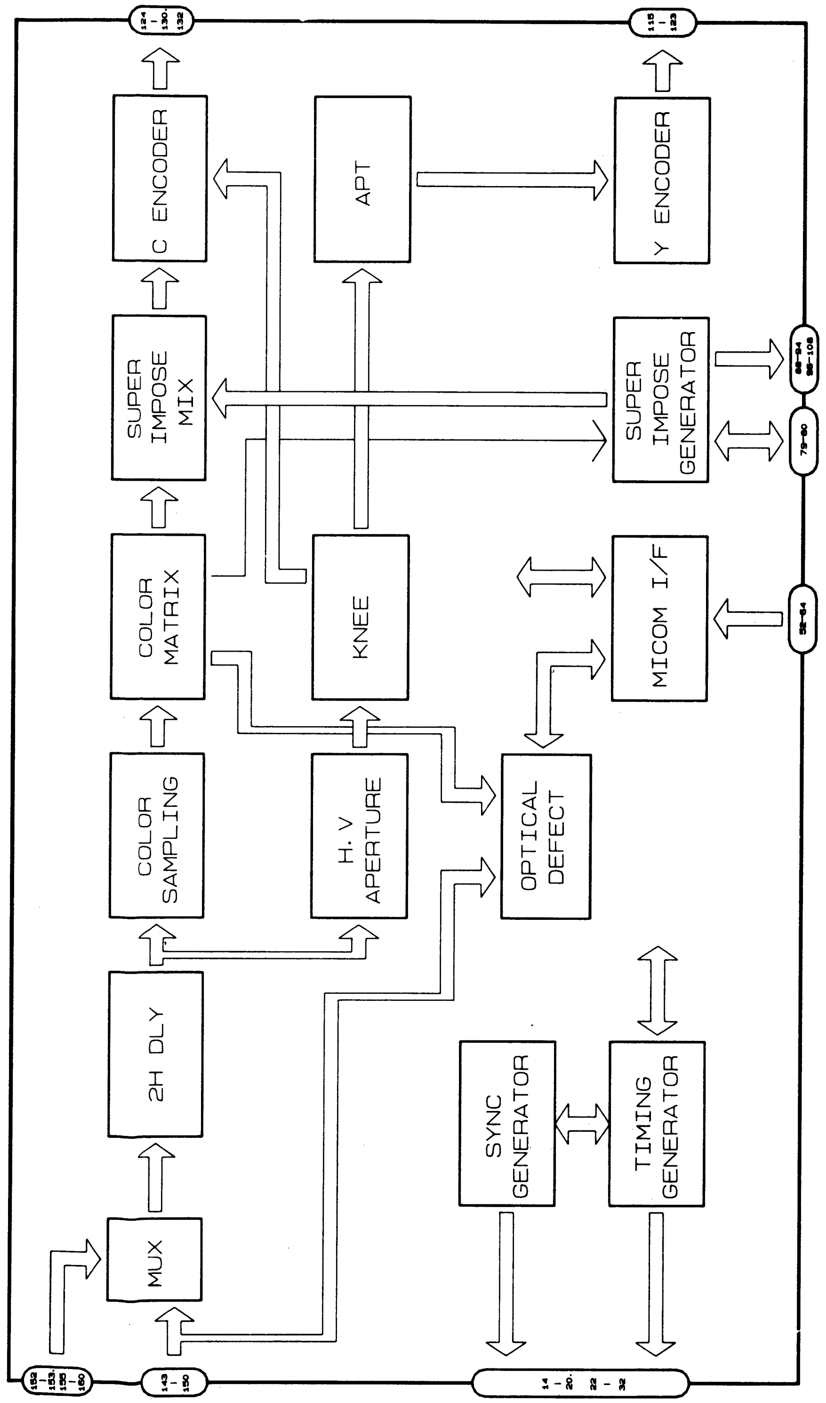
PIN NO	VOLTAGE(DC)
1	0.0
2	4.6
3	0.0
4	0.0
5	4.9

ICP04 (TC7W04)

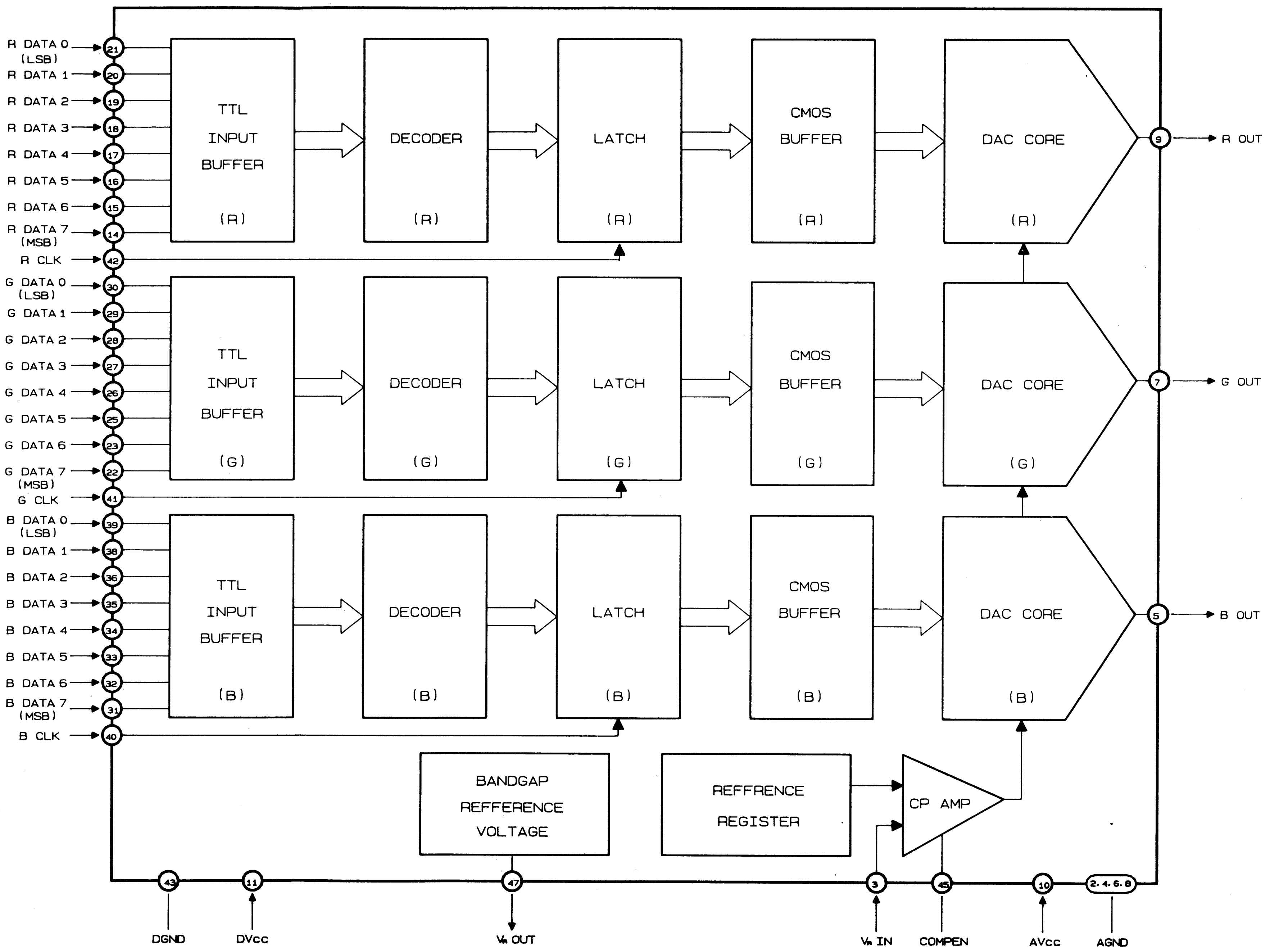
PIN NO	VOLTAGE(DC)
1	4.8
2	4.9
3	0.0
4	0.0
5	4.9
6	0.0
7	0.0
8	4.9

TR NO	E	B	C
QP01	5.0	4.8	1.8
QP02	0.0	0.2	2.0
QP03	3.8	4.5	5.0
QP04	2.6	3.8	4.6
QP05	1.9	2.6	4.0
QP06	3.3	4.0	5.0
QP07	3.4	4.0	5.0
QP08	3.4	4.1	5.0
QP09	4.0	4.6	5.0
QP10	2.2	2.8	3.4
QP11	2.8	3.4	5.0
QP12	0.0	0.0	4.8

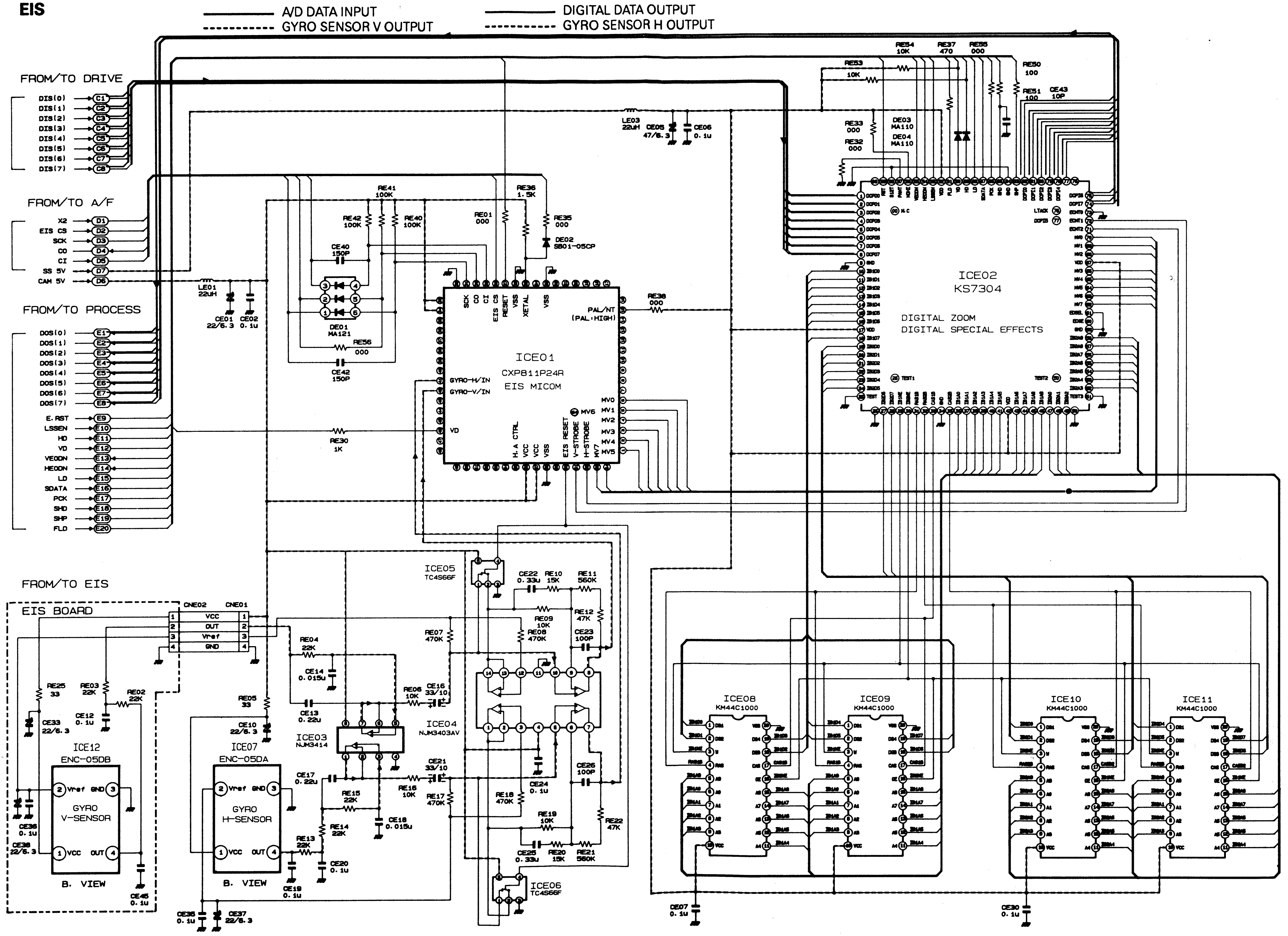
ICP01 KS7301


124-130, 132
115-123
C ENCODER
APT
Y ENCODER
SUPER IMPOSE MIX
SUPER IMPOSE GENERATOR
88-94 96-108
79-80
COLOR MATRIX
KNEE
MICOM I/F
52-64
COLOR SAMPLING
H. V APERTURE
OPTICAL DEFECT
2H DLY
SYNC GENERATOR
TIMING GENERATOR
MUX
152-153, 155-160
143-150
14-20, 22-32

ICP02 KDA0408


R DATA 0 (LSB)
R DATA 1
R DATA 2
R DATA 3
R DATA 4
R DATA 5
R DATA 6
R DATA 7 (MSB)
R CLK
G DATA 0 (LSB)
G DATA 1
G DATA 2
G DATA 3
G DATA 4
G DATA 5
G DATA 6
G DATA 7 (MSB)
G CLK
B DATA 0 (LSB)
B DATA 1
B DATA 2
B DATA 3
B DATA 4
B DATA 5
B DATA 6
B DATA 7 (MSB)
B CLK
21
20
19
18
17
16
15
14
42
30
29
28
27
26
25
23
22
41
39
38
36
35
34
33
32
31
40
TTL INPUT BUFFER (R)
DECODER (R)
LATCH (R)
CMOS BUFFER (R)
DAC CORE (R)
TTL INPUT BUFFER (G)
DECODER (G)
LATCH (G)
CMOS BUFFER (G)
DAC CORE (G)
TTL INPUT BUFFER (B)
DECODER (B)
LATCH (B)
CMOS BUFFER (B)
DAC CORE (B)
9
R OUT
7
G OUT
5
B OUT
BANDGAP REFFERENCE VOLTAGE
REFFRENCE REGISTER
CP AMP
43
DGND
11
DVcc
47
Vref OUT
3
Vref IN
45
COMPEN
10
AVcc
2, 4, 6, 8
AGND

12-15. EIS


A/D DATA INPUT
GYRO SENSOR V OUTPUT
DIGITAL DATA OUTPUT
GYRO SENSOR H OUTPUT
FROM/TO DRIVE
DIS(0) DIS(1) DIS(2) DIS(3) DIS(4) DIS(5) DIS(6) DIS(7)
C1 C2 C3 C4 C5 C6 C7 C8
FROM/TO A/F
X2 EIS CS SCK CO CI SS 5V CAM 5V
D1 D2 D3 D4 D5 D7 D6
FROM/TO PROCESS
DOS(0) DOS(1) DOS(2) DOS(3) DOS(4) DOS(5) DOS(6) DOS(7)
E.RST LSSEN HD VD VEODN HEODN LD SDATA PCK SHD SHP FLD
E1 E2 E3 E4 E5 E6 E7 E8 E9 E10 E11 E12 E13 E14 E15 E16 E17 E18 E19 E20
LE01 22uH
CE01 22/6.3
CE02 0.1u
ICE01
CXP811P24R
EIS MICOM
SCK CO CI EIS CS RESET VSS XETAL VSS
PAL/NT (PAL:HIGH)
GYRO-H/IN
GYRO-V/IN
VD
H.A CTRL VCC VCC VSS EIS RESET V-STROBE H-STROBE MV7
MV0 MV1 MV2 MV3 MV4 MV5 MV6
RE41 100K
RE42 100K
RE40 100K
RE01 000
RE36 1.5K
RE35 000
DE02 SB01-05CP
CE40 150P
DE01 MA121
RE56 000
CE42 150P
RE30 1K
RE38 000
LE03 22uH
CE05 47/6.3
CE06 0.1u
RE54 10K
RE37 470
RE55 000
RE53 10K
RE50 100
RE51 100
CE43 10P
RE33 000
RE32 000
DE03 MA110
DE04 MA110
ICE02
KS7304
DIGITAL ZOOM
DIGITAL SPECIAL EFFECTS
N.C
LTACK
TEST1
TEST2
FROM/TO EIS
EIS BOARD
CNE02 CNE01
VCC OUT Vref GND
RE25 33
RE03 22K
RE02 22K
CE33 22/6.3
CE12 0.1u
ICE12
ENC-05DB
GYRO V-SENSOR
Vref GND VCC OUT
B. VIEW
CE36 0.1u
CE38 22/6.3
CE45 0.1u
RE05 33
CE10 22/6.3
ICE07
ENC-05DA
GYRO H-SENSOR
CE35 0.1u
CE37 22/6.3
RE04 22K
CE14 0.015u
CE13 0.22u
ICE03
NJM3414
CE17 0.22u
RE15 22K
RE14 22K
RE13 22K
CE19 0.1u
CE20 0.1u
CE18 0.015u
RE06 10K
CE16 33/10
RE16 10K
CE21 33/10
RE17 470K
ICE04
NJM3403AV
ICE05
TC4S66F
ICE06
TC4S66F
RE07 470K
CE22 0.33u
RE10 15K
RE11 560K
RE09 10K
RE08 470K
RE12 47K
CE23 100P
CE24 0.1u
CE26 100P
RE18 470K
RE19 10K
CE25 0.33u
RE20 15K
RE21 560K
RE22 47K
ICE08 KM44C1000
ICE09 KM44C1000
ICE10 KM44C1000
ICE11 KM44C1000
CE07 0.1u
CE30 0.1u

ICE01 (CXP811P24R)

PIN NO	VOLTAGE(DC)
1	0,0
2	0.0
3	0.0
4	0.0
5	0.0
6	0.0
7	0.0
8	0.0
9	0.0
10	0.0
11	0.0
12	0.0
13	0.0
14	0.0
15	5.0
16	0.0
17	0.0
18	0.0
19	0.0
20	0.0
21	0.0
22	0.0
23	0.0
24	1.8
25	2.1
26	0.0
27	4.8
28	4.8
29	0.4
30	4.5
31	4.5
32	0.0
33	4.8
34	4.8
35	0.0
36	0.0

ICE01 (CXP80724)

PIN NO	VOLTAGE(DC)
37	0.0
38	0.0
39	0.0
40	2.2
41	2.2
42	0.0
43	0.0
44	0.0
45	0.0
46	4.7
47	4.0
48	4.0
49	0.0
50	0.0
51	0.0
52	0.0
53	0.0
54	0.0
55	0.0
56	0.0
57	0.0
58	0.0
59	0.0
60	0.0
61	2.3
62	2.3
63	3.6
64	0.0

ICE03 (NJM3414)

PIN NO	VOLTAGE(DC)
1	2.4
2	2.4
3	2.4
4	0.0
5	2.2
6	2.3
7	2.3
8	5.0

ICE04 (NJM3403A)

PIN NO	VOLTAGE(DC)
1	2.4
2	2.4
3	2.3
4	5.0
5	2.4
6	2.4
7	2.3
8	2.3
9	2.4
10	2.4
11	0.0
12	2.3
13	2.4
14	2.4

ICE05 (TC4S66)

PIN NO	VOLTAGE(DC)
1	2.4
2	2.4
3	0.0
4	0.0
5	5.0

ICE02 (KS7304)

PIN NO	VOLTAGE(DC)
1	2.8
2	2,8
3	2.8
4	2.8
5	2.8
6	2,8
7	2,8
8	2,8
9	0,0
10	2,9
11	2,9
12	2.9
13	2.9
14	2.9
15	2.9
16	2.9
17	5.0
18	2.7
19	2.7
20	2.7
21	2.7
22	2.7
23	2.7
24	2.7
25	0.0
26	0.0
27	2.9
28	2.9
29	2.9
30	2.9
31	2.9
32	2.9
33	2.9
34	0.0
35	2.9
36	2.9
37	2.9
38	2.9
39	2.9
40	2.9
41	2.9
42	2.9
43	2.9
44	2.9
45	2.9
46	2.9
47	2.9
48	2.9
49	2.9
50	0.0
51	0.0
52	2.9
53	2.9
54	2.9
55	2.9
56	2.9
57	2.9
58	2.9
59	0.0
60	0.0
61	0.0
62	3.5
63	3.5
64	3.5
65	3.5
66	3.5
67	5.0
68	3.5
69	3.5
70	3.5
71	2.0
72	2.0
73	0.0
74	2.6
75	2,8
76	0.0
77	2.6
78	2.6
79	2.6
80	2.6
81	2.6
82	2.6
83	2.6
84	0.0
85	2.6
86	2.6
87	2.6
88	2.6
89	2.6
90	2.6
91	3.5
92	5.0
93	5.0
94	3.5
95	3.5
96	5.0
97	5.0
98	0.0
99	4.9
100	0.0

ICE06 (TC4S66)

PIN NO	VOLTAGE(DC)
1	2.4
2	2.4
3	0.0
4	0.0
5	5.0

ICE07 (ENC-05DB)

PIN NO	VOLTAGE(DC)
1	5.0
2	2.4
3	0.0
4	2.4

ICE08 (KM44C1000)

PIN NO	VOLTAGE(DC)
1	2.9
2	2.9
3	2.9
4	2.9
5	2.9
6	2.9
7	2.9
8	2.9
9	2.9
10	5.0
11	2.9
12	2.9
13	2.9
14	2.9
15	2.9
16	2.9
17	2.9
18	2.9
19	2.9
20	0.0

ICE09 (KM44C1000)

PIN NO	VOLTAGE(DC)
1	2.9
2	2.9
3	2.9
4	2.9
5	2.9
6	2.9
7	2.9
8	2.9
9	2.9
10	5.0
11	2.9
12	2.9
13	2.9
14	2.9
15	2.9
16	2.9
17	2.9
18	2.9
19	2.9
20	0.0

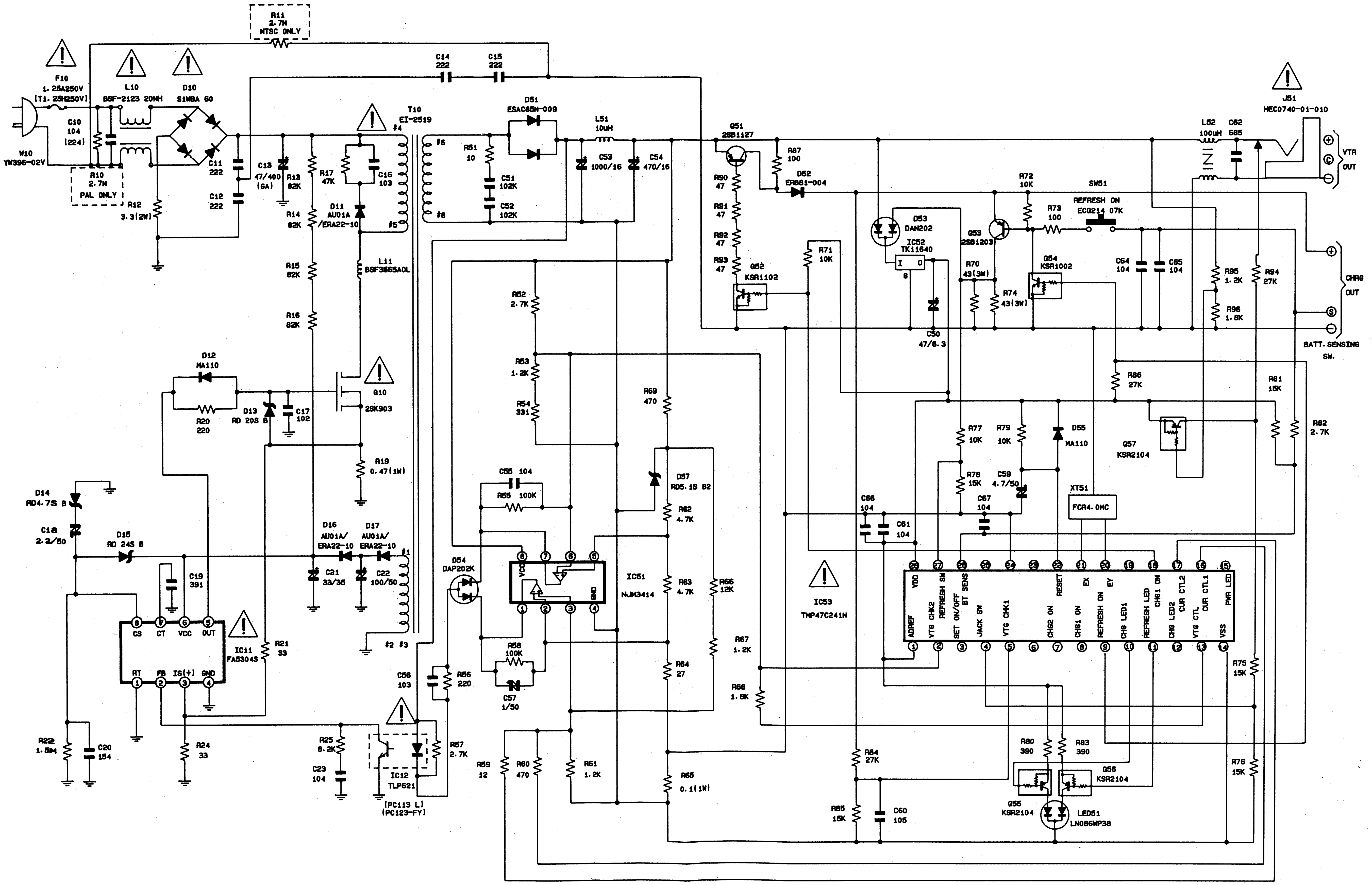
ICE10 (KM44C1000)

PIN NO	VOLTAGE(DC)
1	2.9
2	2.9
3	2.9
4	2.9
5	2.9
6	2.9
7	2.9
8	2.9
9	2.9
10	5.0
11	2.9
12	2.9
13	2.9
14	2.9
15	2.9
16	2.9
17	2.9
18	2.9
19	2.9
20	0.0

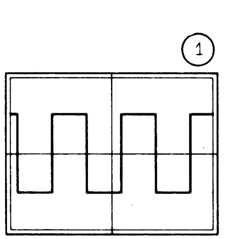
ICE11 (KM44C1000)

PIN NO	VOLTAGE(DC)
1	2.9
2	2.9
3	2.9
4	2.9
5	2.9
6	2.9
7	2.9
8	2.9
9	2.9
10	5.0
11	2.9
12	2.9
13	2.9
14	2.9
15	2.9
16	2.9
17	2.9
18	2.9
19	2.9
20	0.0

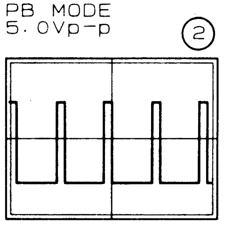
12-16. ADAPTOR


R11
2.7M
NTSC ONLY
C14
222
C15
222
F10
1.25A250V
(T1.25H250V)
L10
BSF-2123 20MH
D10
S1WBA 60
C10
104
(224)
W10
YW396-02V
R10
2.7M
PAL ONLY
R12
3.3(2W)
C11
222
C12
222
C13
47/400
(GA)
R13
82K
R14
82K
R15
82K
R16
82K
R17
47K
C16
103
D11
AU01A
/ERA22-10
T10
EI-2519
#4
#5
#6
#8
#1
#2 #3
L11
BSF3565A0L
R51
10
C51
102K
C52
102K
D51
ESAC85M-009
L51
10uH
C53
1000/16
C54
470/16
Q51
2SB1127
R87
100
D52
ERB81-004
R90
47
R91
47
R92
47
R93
47
Q52
KSR1102
R71
10K
D53
DAN202
IC52
TK11640
I O
6
C50
47/6.3
R70
43(3W)
R74
43(3W)
Q53
2SB1203
R72
10K
R73
100
SW51
REFRESH ON
ECG214 07K
Q54
KSR1002
C64
104
C65
104
L52
100uH
C62
685
J51
HEC0740-01-010
VTR
OUT
CHRG
OUT
BATT. SENSING
SW.
R95
1.2K
R94
27K
R96
1.8K
D12
MA110
R20
220
D13
RD 20S B
C17
102
Q10
2SK903
R19
0.47(1W)
R52
2.7K
R53
1.2K
R54
331
R69
470
D57
RD5.1S B2
R62
4.7K
R63
4.7K
R66
12K
R64
27
R67
1.2K
R68
1.8K
R65
0.1(1W)
R86
27K
R77
10K
R79
10K
D55
MA110
R78
15K
C59
4.7/50
C67
104
C66
104
C61
104
XT51
FCR4.0MC
Q57
KSR2104
R81
15K
R82
2.7K
D14
RD4.7S B
C18
2.2/50
D15
RD 24S B
C19
391
D16
AU01A/
ERA22-10
D17
AU01A/
ERA22-10
C21
33/35
C22
100/50
C55 104
R55 100K
D54
DAP202K
IC51
NJM3414
VCC
GND
R58
100K
C57
1/50
C56
103
R56
220
IC11
FA5304S
CS CT VCC OUT
RT FB IS(+) GND
R21
33
R22
1.5M
C20
154
R24
33
R25
8.2K
C23
104
IC12
TLP621
(PC113 L)
(PC123-FY)
R57
2.7K
R59
12
R60
470
R61
1.2K
IC53
TMP47C241N
VDD
REFRESH SW
VTG CHK2
SET ON/OFF
BT SENS
JACK SW
VTG CHK1
RESET
CHG2 ON
EX
CHG1 ON
EY
REFRESH ON
CHG LED1
REFRESH LED
CHG1 ON
CHG LED2
CUR CTL2
VTG CTL
CUR CTL1
PWR LED
VSS
ADREF
R84
27K
R85
15K
C60
105
R80
390
R83
390
Q56
KSR2104
Q55
KSR2104
LED51
LN086WP38
R75
15K
R76
15K

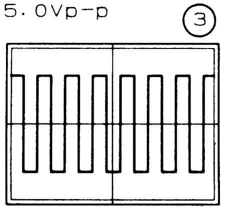
12-2. SYSTEM COTROL/SERVO



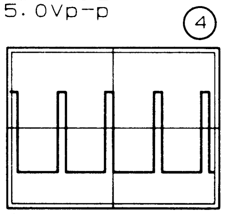
IC601-96
PB MODE
5.0Vp-p



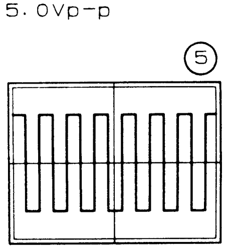
IC601-76
PB MODE
5.0Vp-p



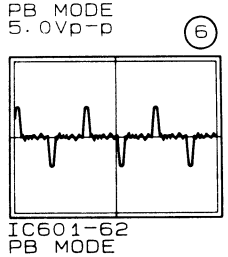
IC601-69
PB MODE
5.0Vp-p



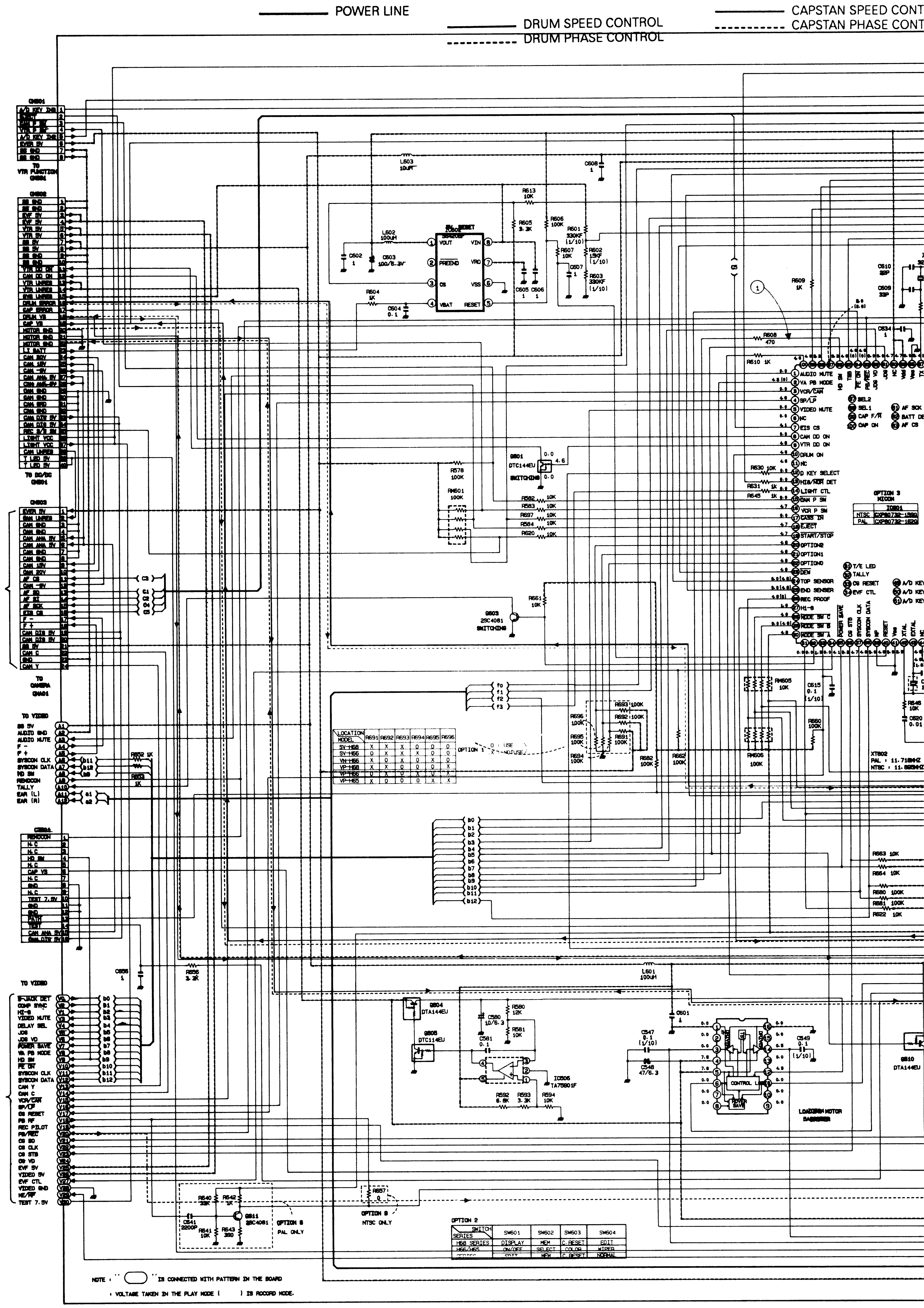
IC601-75
PB MODE
5.0Vp-p



IC601-70
PB MODE
5.0Vp-p



IC601-62
PB MODE
1.0Vp-p


POWER LINE
DRUM SPEED CONTROL
DRUM PHASE CONTROL
CAPSTAN SPEED CONT
CAPSTAN PHASE CONT
CN601
TO VTR FUNCTION CN901
CN602
TO DD/DC CN801
CN603
TO CAMERA CN401
TO VIDEO
CN604
TO VIDEO
IC602
VOUT
VIN
PREEND
VRO
CS
VSS
VBAT
RESET
L602 100uH
L603 10uH
Q601 DTC144EU SWITCHING
Q603 2SC4081 SWITCHING
Q604 DTA144EU
Q605 DTC114EU
IC606 TA75801F
L601 100uH
CONTROL LOGIC
POWER SAVE
LOADING MOTOR
Q610 DTA144EU
OPTION 1
0 : USE
X : NOTUSE
OPTION 3 MICOM
IC601
NTSC CXP80732-159Q
PAL CXP80732-162Q
XT602
PAL : 11.718MHZ
NTSC : 11.869MHZ
Q611 2SC4081
OPTION 8 PAL ONLY
OPTION 9 NTSC ONLY
C641 2200P
R640 33K
R641 10K
R642 1K
R643 390
OPTION 2

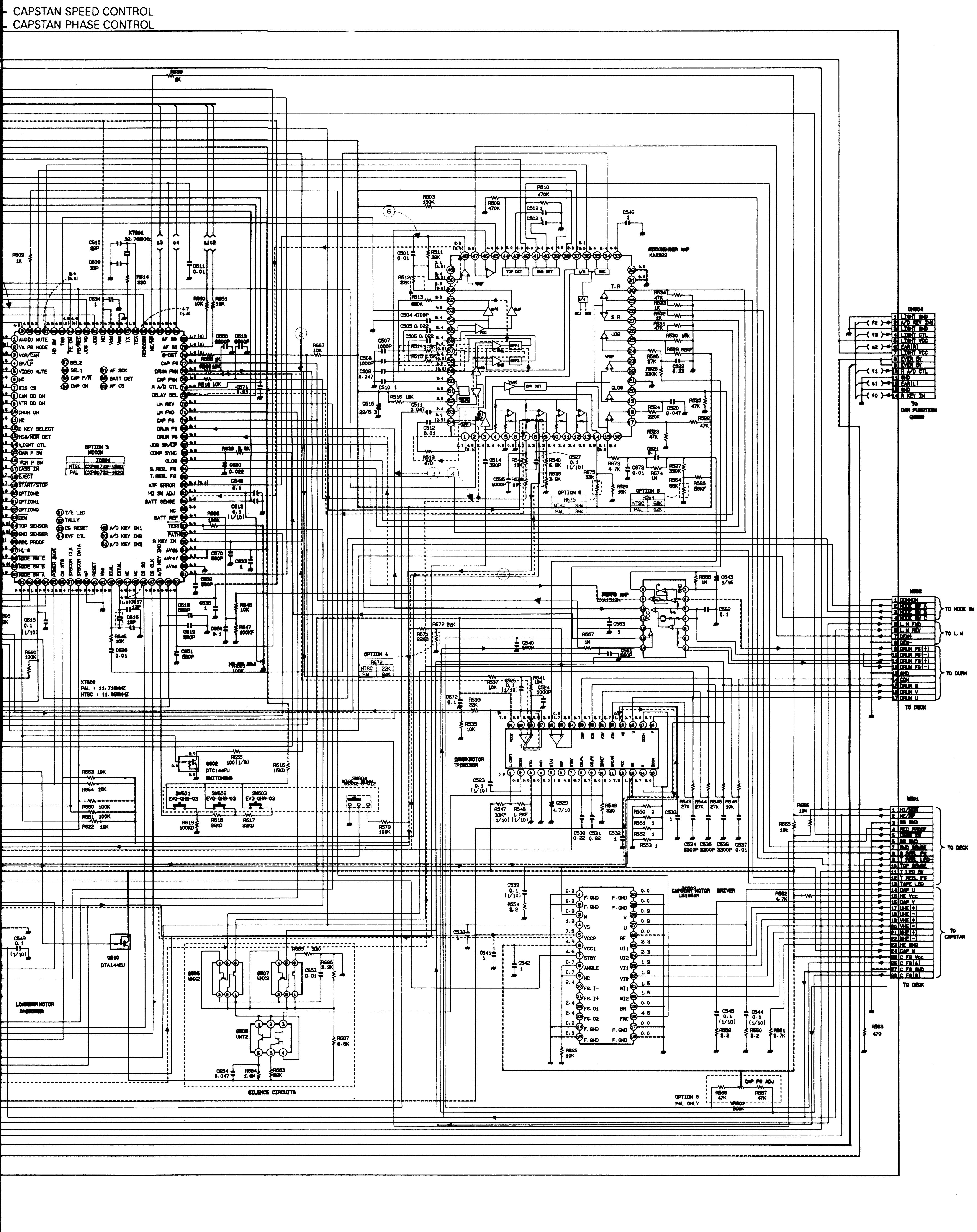
LOCATION / MODEL	R691	R692	R693	R694	R695	R696
SV-H68	X	X	X	0	0	0
SV-H66	0	X	X	X	0	0
VN-H66	X	0	X	0	X	0
VP-H68	X	X	0	0	0	X
VP-H66	0	X	0	X	0	X
VP-H65	X	0	0	0	X	X

OPTION 2

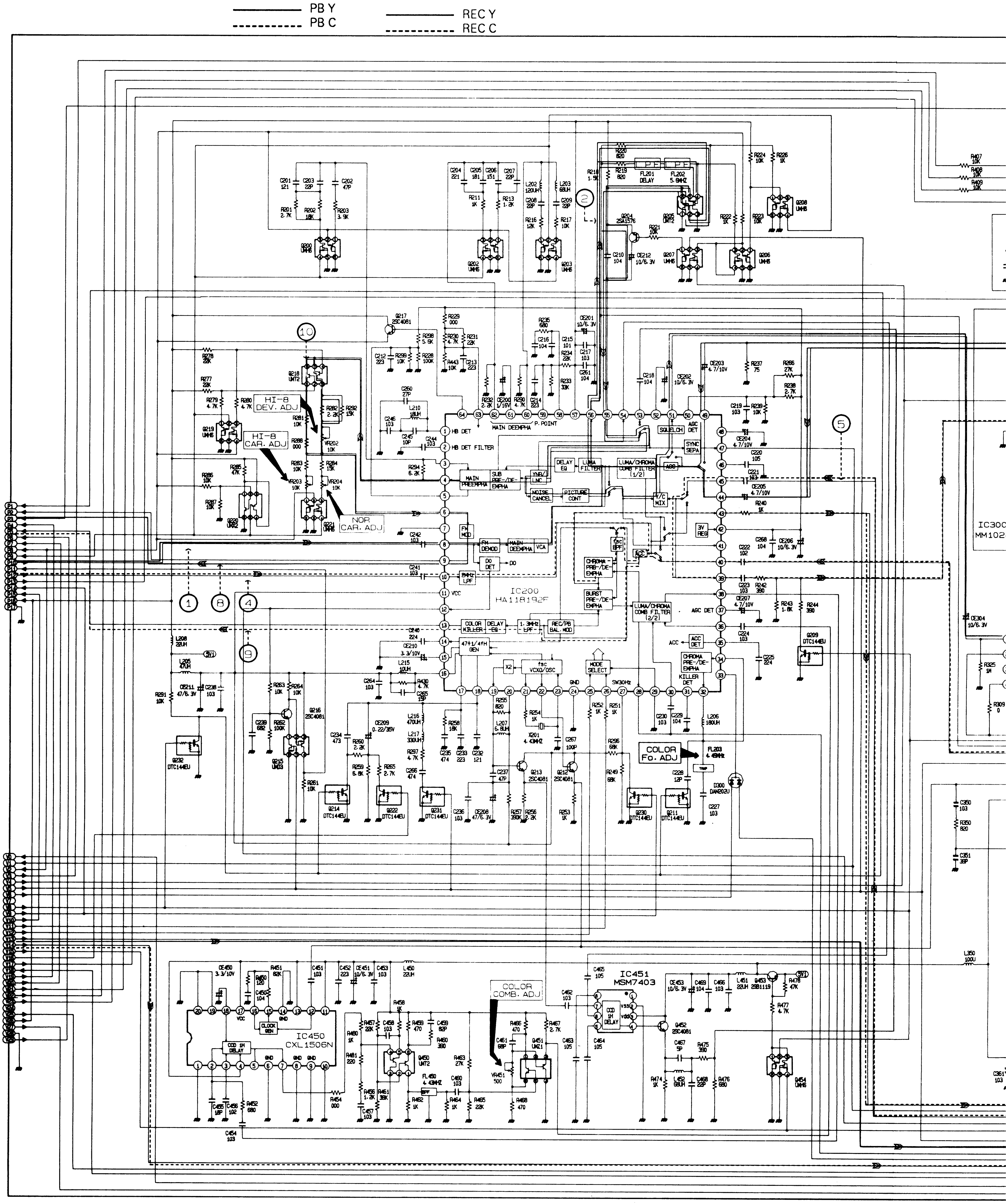
SWITCH / SERIES	SW601	SW602	SW603	SW604
H68 SERIES	DISPLAY	MEM	C.RESET	EDIT
H66/H65	ON/OFF	SELECT	COLOR	WIPER
SERIES	EDIT	MEM	C.RESET	NORMAL

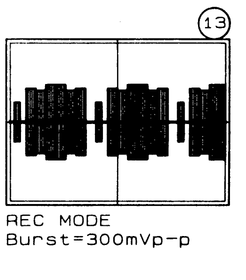
NOTE : " ⬭ " IS CONNECTED WITH PATTERN IN THE BOARD

: VOLTAGE TAKEN IN THE PLAY MODE ( ) IS ROCORD MODE.

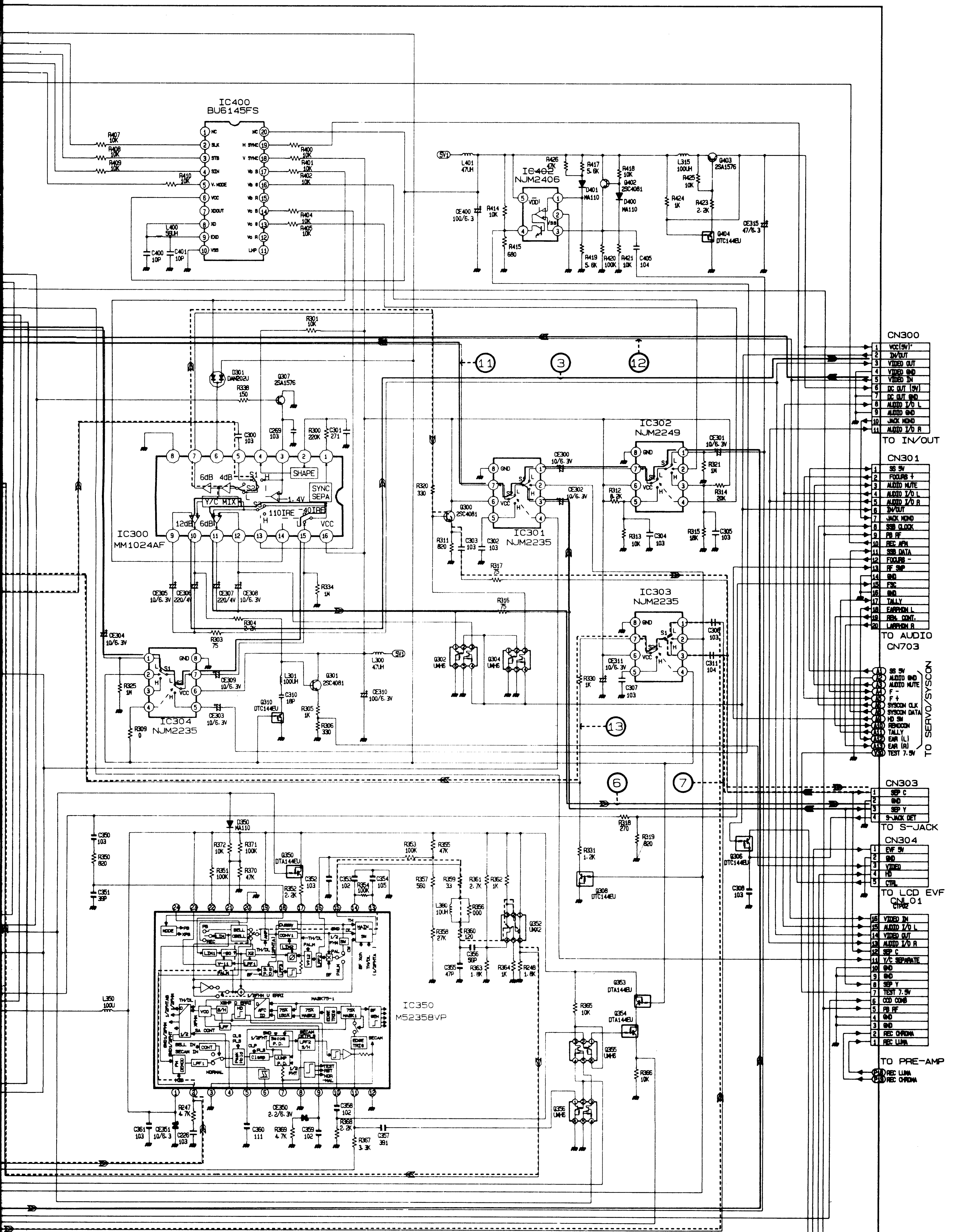

CAPSTAN SPEED CONTROL
CAPSTAN PHASE CONTROL
R609 1K
XT601 32.768KHz
C610 22P
C609 33P
R614 330
C611 0.01
R650 10K
R651 10K
C634 1
AUDIO MUTE
VA PB MODE
VCR/CAM
SP/LP
VIDEO MUTE
NC
EIS CS
CAM DD ON
VTR DD ON
DRUM ON
NC
D KEY SELECT
HI8/NOR DET
LIGHT CTL
CAM P SW
VCR P SW
CASS IN
EJECT
START/STOP
OPTION2
OPTION1
OPTION0
DEW
TOP SENSOR
END SENSOR
REC PROOF
HI-8
MODE SW C
MODE SW B
MODE SW A
SEL2
SEL1
CAP F/R
CAP ON
AF SCK
BATT DET
AF CS
T/E LED
TALLY
CS RESET
EVF CTL
A/D KEY IN1
A/D KEY IN2
A/D KEY IN3
OPTION 3
MICOM
IC601
NTSC CXP80732-159Q
PAL CXP80732-152Q
AF SO
AF SI
S-DET
CAP FG
DRUM PWM
CAP PWM
R A/D CTL
DELAY SEL
LM REV
LM FWD
DRUM FG
DRUM PG
JOG SP/LP
COMP SYNC
CTL
S.REEL FG
T.REEL FG
ATF ERROR
HD SW ADJ
BATT SENSE
NC
BATT REF
TEST
PATH
R KEY IN
AVss
AVref
AVss
XT602
PAL : 11.7184HZ
NTSC : 11.8884HZ
C615 0.1 (1/10)
R660 100K
R645 10K
C620 0.01
C616 12P
C617 12P
C618 560P
C619 560P
C621 560P
C650 0.1
R648 10K
R647 100KF
HD SW ADJ VR601 100K
R667 10K
R503 150K
R509 470K
R510 470K
C502
C503
C546
C501 0.01
R511 39K
R512 22K
R513 680K
C504 4700P
C505 0.022
C506 0.022
C507 1000P
C508 1000P
C509 0.047
C510 1
C515 22/6.3
R516 18K
C511 0.047
C512 0.01
R519 470
C514 390P
C525 1000P
R540 6.8K
R536 3.9K
C527 0.1 (1/10)
R675 33K
OPTION 5
R675 NTSC 33k PAL 39k
R520 18K
C573 0.01
R674 1M
R527 390K
R564 68K
R565 56KF
OPTION 6
R564 NTSC 68K PAL 82K
ATF/SENSOR AMP KA8322
TOP DET
END DET
S/H
OSC
T.R
S.R
JOG
CTL
R534 47K
R533 1K
R532 1K
R531 47K
R530 15K
R529 82KF
R585 27K
R526 330K
C522 0.33
R525 47K
R524 220K
C520 0.047
R522 47K
R523 47K
C521 0.1
R673 4.7K
R668 1M
C643 1/16
PB/FG AMP CXA1512M
C562 0.1
C563 1
R557 1M
C540 560P
C561 1560P
R671 22K
R672 22K
OPTION 4
R672 NTSC 22K PAL 24K
R537 10K
C526 0.1 (1/10)
R541 10K
C524 1000P
C672 0.1
R539 22K
R535 10K
DRUM/ROTOR TP DRIVER
C523 0.1 (1/10)
R547 33KF (1/10)
R548 1.2KF (1/10)
C529 4.7/10
R549 330
R550 1
R551 1
R552 1
R553 1
C533 1
C530 0.22
C531 0.22
C532 1
R543 27K
R544 27K
R545 27K
R546 10K
C534 3300P
C535 3300P
C536 3300P
C537 0.01
Q602 DTC144EU SWITCHING
R655 100(1/8)
R615 15KD
R663 10K
R664 10K
R680 100K
R681 100K
R622 10K
SW601 EVQ-QHS-03
SW602 EVQ-QHS-03
SW603 EVQ-QHS-03
R619 100KD
R618 22KD
R617 33KD
SW604
R579 100K
C539 0.1 (1/10)
R554 2.2
C538 4
C541 1
C542 1
IC503 CAPSTAN MOTOR DRIVER LB1651M
F.GND
W
VS
VCC2
VCC1
STBY
ANGLE
NC
FG. I-
FG. I+
FG. 01
FG. 02
F.GND
V
U
RF
UI1
UI2
VI1
VI2
WI1
WI2
BR
FRC
R555 10K
C545 0.1 (1/10)
C544 0.1 (1/10)
R559 2.2
R560 2.2
R561 2.7K
R562 4.7K
R563 470
R565 10K
R566 10K
CAP FG ADJ
R586 47K
R587 47K
VR602 500K
OPTION 6 PAL ONLY
C549 1 (1/10)
Q610 DTA144EU
LOADING MOTOR DRIVER
Q606 UMX2
Q607 UMX2
Q608 UMT2
R685 330
R686 3.9K
C653 0.01
R687 6.8K
C654 0.047
R684 1.8K
R683 82K
SILENCE CIRCUITS
CN604
LIGHT GND
A/D KEY IN1
LIGHT GND
LIGHT CTL
LIGHT VCC
EAR(R)
EVER 5V
EVER 5V
R A/D CTL
GND
EAR(L)
GND
R KEY IN
TO CAM FUNCTION CN602
WB02
COMMON
MODE SW A
MODE SW B
MODE SW C
LM FWD
LM REV
GND
DEW
DRUM PG(+)
DRUM PG(-)
DRUM FG(+)
DRUM FG(-)
GND
COM
DRUM W
DRUM V
DRUM U
TO MODE SW
TO L.M
TO DURM
TO DECK
WB01
HI/END
HI/EP
SS GND
REC PROOF
CASS IN
SS GND
END SENSE
S REEL FG
T REEL LED
TOP SENSE
T LED 5V
T REEL FG
TAPE LED
CAP U
HE Vcc
CAP V
UHE(+)
UHE(-)
VHE(+)
VHE(-)
WHE(+)
WHE(-)
HE GND
CAP W
C FG Vcc
C FG(A)
C FG GND
C FG(B)
TO DECK
TO CAPSTAN
TO DECK

12-3. VIDEO

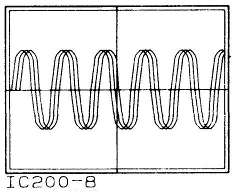

PB Y
PB C
REC Y
REC C
TO PRE-AMP
TO SYSCON/SERVO
IC200
HA118192F
IC450
CXL1506N
IC451
MSM7403
IC300
MM102
HI-8
DEV. ADJ
HI-8
CAR. ADJ
NOR
CAR. ADJ
COLOR
Fo. ADJ
COLOR
COMB. ADJ
MAIN DEEMPHA
P. POINT
HB DET
HB DET FILTER
MAIN PREEMPHA
SUB PRE-/DE-EMPHA
NOISE CANCEL
PICTURE CONT
DELAY EQ
LUMA FILTER
LUMA/CHROMA COMB FILTER (1/2)
LUMA/CHROMA COMB FILTER (2/2)
SQUELCH
AGC DET
SYNC SEPA
Y/C MIX
FM MOD
FM DEMOD
MAIN DEEMPHA
VCA
DO DET
8MHz LPF
3V REG
fsc BPF
CHROMA PRE-/DE-EMPHA
BURST PRE-/DE-EMPHA
COLOR KILLER
DELAY EQ
1.3MHz LPF
REC/PB BAL. MOD
47H1/4fH GEN
fsc VCXO/OSC
MODE SELECT
SW30Hz
ACC DET
KILLER DET
CLOCK GEN
CCD 1H DELAY
FL201 DELAY
FL202 5.6MHZ
FL203 4.43MHz
FL450 4.43MHZ
①
②
④
⑤
⑧
⑨
⑩



REC MODE
Burst=300mVp-p

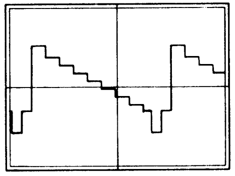

IC400
BU6145FS
IC402
NJM2406
5V1
IC300
MM1024AF
SHAPE
SYNC SEPA
Y/C MIX
110IRE
40IRE
6dB
4dB
12dB
IC302
NJM2249
IC301
NJM2235
IC303
NJM2235
IC304
NJM2235
IC350
M52358VP
11
3
12
13
6
7
CN300
1 VCC(5V)*
2 IN/OUT
3 VIDEO OUT
4 VIDEO GND
5 VIDEO IN
6 DC OUT (5V)
7 DC OUT GND
8 AUDIO I/O L
9 AUDIO GND
10 JACK MONO
11 AUDIO I/O R
TO IN/OUT
CN301
1 SS 5V
2 FOCURS +
3 AUDIO MUTE
4 AUDIO I/O L
5 AUDIO I/O R
6 IN/OUT
7 JACK MONO
8 SSB CLOCK
9 PB RF
10 REC AFM
11 SSB DATA
12 FOCURS -
13 RF SMP
14 GND
15 FSC
16 GND
17 TALLY
18 EARPHON L
19 REM. CONT.
20 LARPHON R
TO AUDIO
CN703
A1 SS 5V
A2 AUDIO GND
A3 AUDIO MUTE
A4 F -
A5 F +
A6 SYSCON CLK
A8 SYSCON DATA
A9 HD SW
A10 REMOCON
A11 TALLY
A12 EAR (L)
A13 EAR (R)
Y30 TEST 7.5V
TO SERVO/SYSCON
CN303
1 SEP C
2 GND
3 SEP Y
4 S-JACK DET
TO S-JACK
CN304
1 EVF 5V
2 GND
3 VIDEO
4 HD
5 CTRL
TO LCD EVF
CNL01
CTP02
16 VIDEO IN
15 AUDIO I/O L
14 VIDEO OUT
13 AUDIO I/O R
12 SEP C
11 Y/C SEPARATE
10 GND
9 GND
8 SEP Y
7 TEST 7.5V
6 CCD COMB
5 PB RF
4 GND
3 GND
2 REC CHROMA
1 REC LUMA
TO PRE-AMP
P18 REC LUMA
P19 REC CHROMA

①



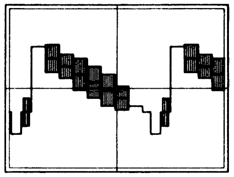
IC200-8
PB MODE
500mVp-p

②



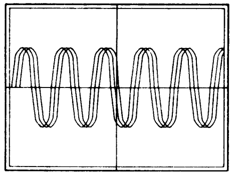
IC200-56
PB/REC MODE
600mVp-p

③



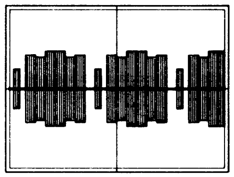
IC300-10
PB/REC MODE
2.0Vp-p

④



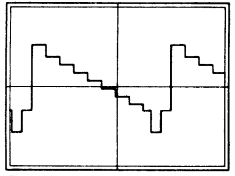
IC200-10
PB MODE
500mVp-p

⑤



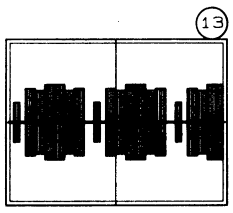
IC200-45
PB/REC MODE
Burst=300mVp-p

⑥



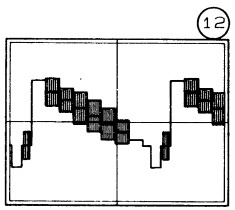
CN303-3
PB MODE
1Vp-p

⑬



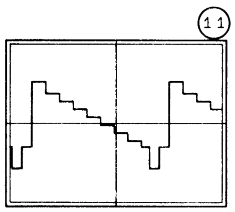
REC MODE
Burst=300mVp-p

⑫



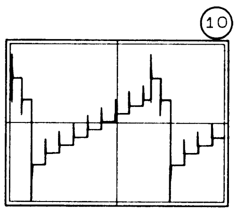
CN300-5
REC MODE
1.0Vp-p

⑪



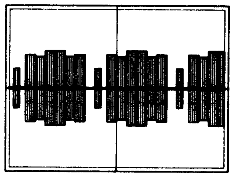
IC301-7
REC MODE
1Vp-p

⑩



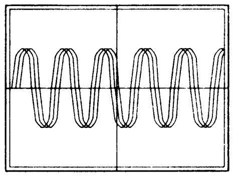
IC200-4
REC MODE
300mVp-p

⑨



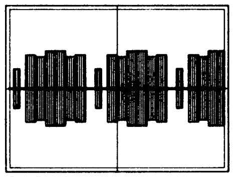
IC200-13
REC MODE
Burst=300mVp-p

⑧



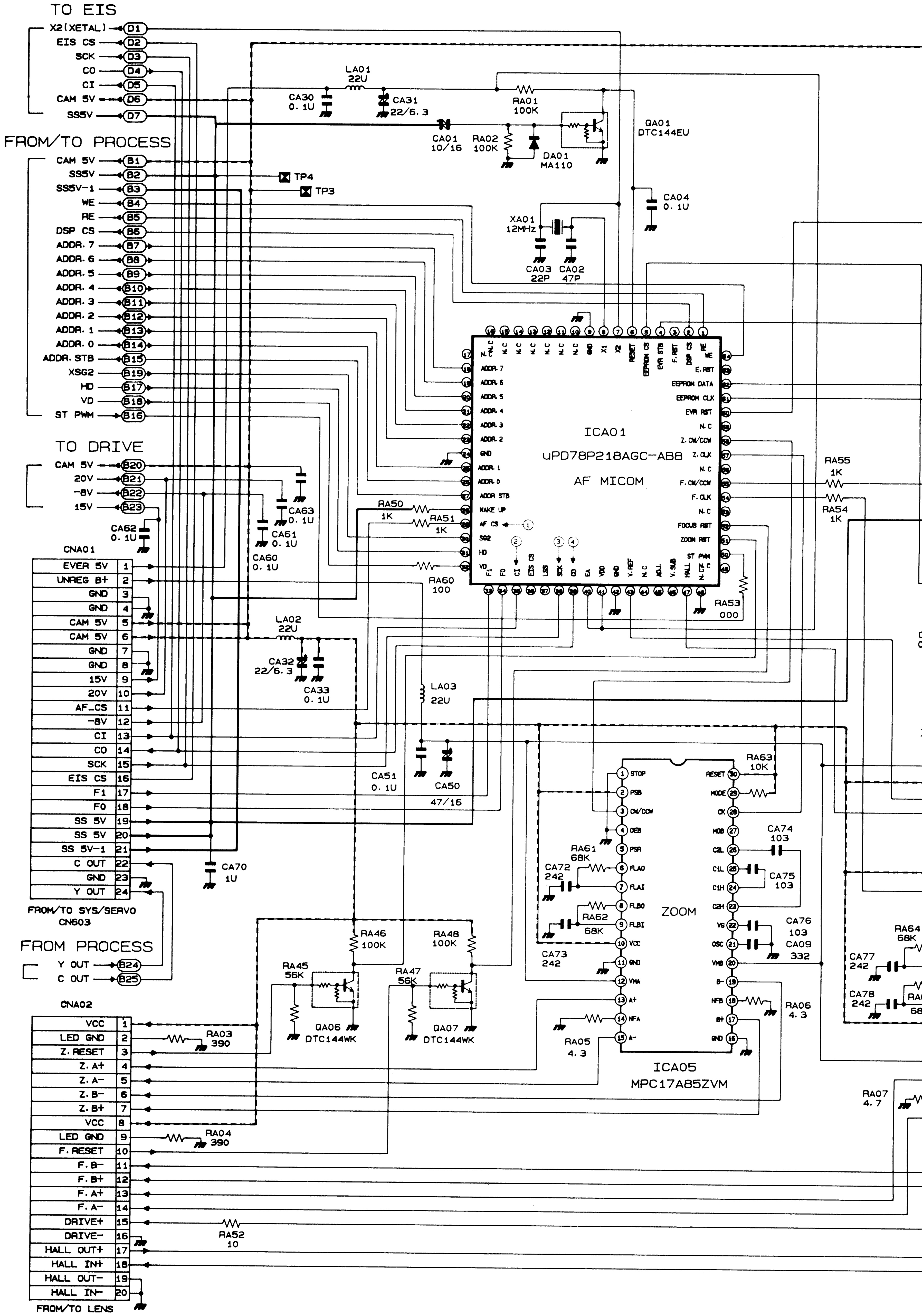
IC200-9
REC MODE
900mVp-p

⑦

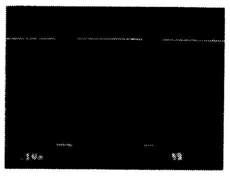


CN303-1
PB MODE
Burst=300mVp-p

12-13. A/F

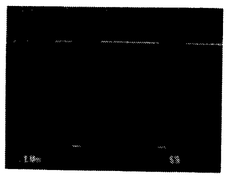

TO EIS
X2(XETAL) D1
EIS CS D2
SCK D3
CO D4
CI D5
CAM 5V D6
SS5V D7
FROM/TO PROCESS
CAM 5V B1
SS5V B2
SS5V-1 B3
WE B4
RE B5
DSP CS B6
ADDR. 7 B7
ADDR. 6 B8
ADDR. 5 B9
ADDR. 4 B10
ADDR. 3 B11
ADDR. 2 B12
ADDR. 1 B13
ADDR. 0 B14
ADDR. STB B15
XSG2 B19
HD B17
VD B18
ST PWM B16
TO DRIVE
CAM 5V B20
20V B21
-8V B22
15V B23
LA01 22U
CA30 0. 1U
CA31 22/6. 3
RA01 100K
QA01 DTC144EU
CA01 10/16
RA02 100K
DA01 MA110
TP4
TP3
CA04 0. 1U
XA01 12MHz
CA03 22P
CA02 47P
ICA01
uPD78P218AGC-AB8
AF MICOM
CA63 0. 1U
CA61 0. 1U
CA60 0. 1U
CA62 0. 1U
RA50 1K
RA51 1K
RA60 100
RA53 000
RA55 1K
RA54 1K
CNA01
EVER 5V 1
UNREG B+ 2
GND 3
GND 4
CAM 5V 5
CAM 5V 6
GND 7
GND 8
15V 9
20V 10
AF_CS 11
-8V 12
CI 13
CO 14
SCK 15
EIS CS 16
F1 17
F0 18
SS 5V 19
SS 5V 20
SS 5V-1 21
C OUT 22
GND 23
Y OUT 24
FROM/TO SYS/SERVO CN603
LA02 22U
CA32 22/6. 3
CA33 0. 1U
LA03 22U
CA51 0. 1U
CA50 47/16
CA70 1U
FROM PROCESS
Y OUT B24
C OUT B25
RA46 100K
RA48 100K
RA45 56K
RA47 56K
QA06 DTC144WK
QA07 DTC144WK
CNA02
VCC 1
LED GND 2
Z. RESET 3
Z. A+ 4
Z. A- 5
Z. B- 6
Z. B+ 7
VCC 8
LED GND 9
F. RESET 10
F. B- 11
F. B+ 12
F. A+ 13
F. A- 14
DRIVE+ 15
DRIVE- 16
HALL OUT+ 17
HALL IN+ 18
HALL OUT- 19
HALL IN- 20
FROM/TO LENS
RA03 390
RA04 390
RA52 10
RA63 10K
RA61 68K
RA62 68K
CA72 242
CA73 242
CA74 103
CA75 103
CA76 103
CA09 332
ZOOM
ICA05
MPC17A85ZVM
RA05 4. 3
RA06 4. 3
RA07 4. 7
RA64 68K
CA77 242
CA78 242

①



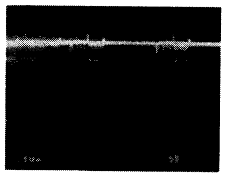
ICA01-29
AF CS

②



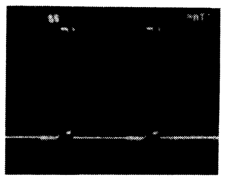
ICA01-35
CI

③



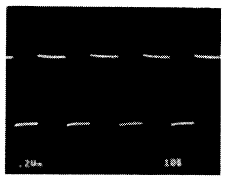
ICA01-38
SCK

④

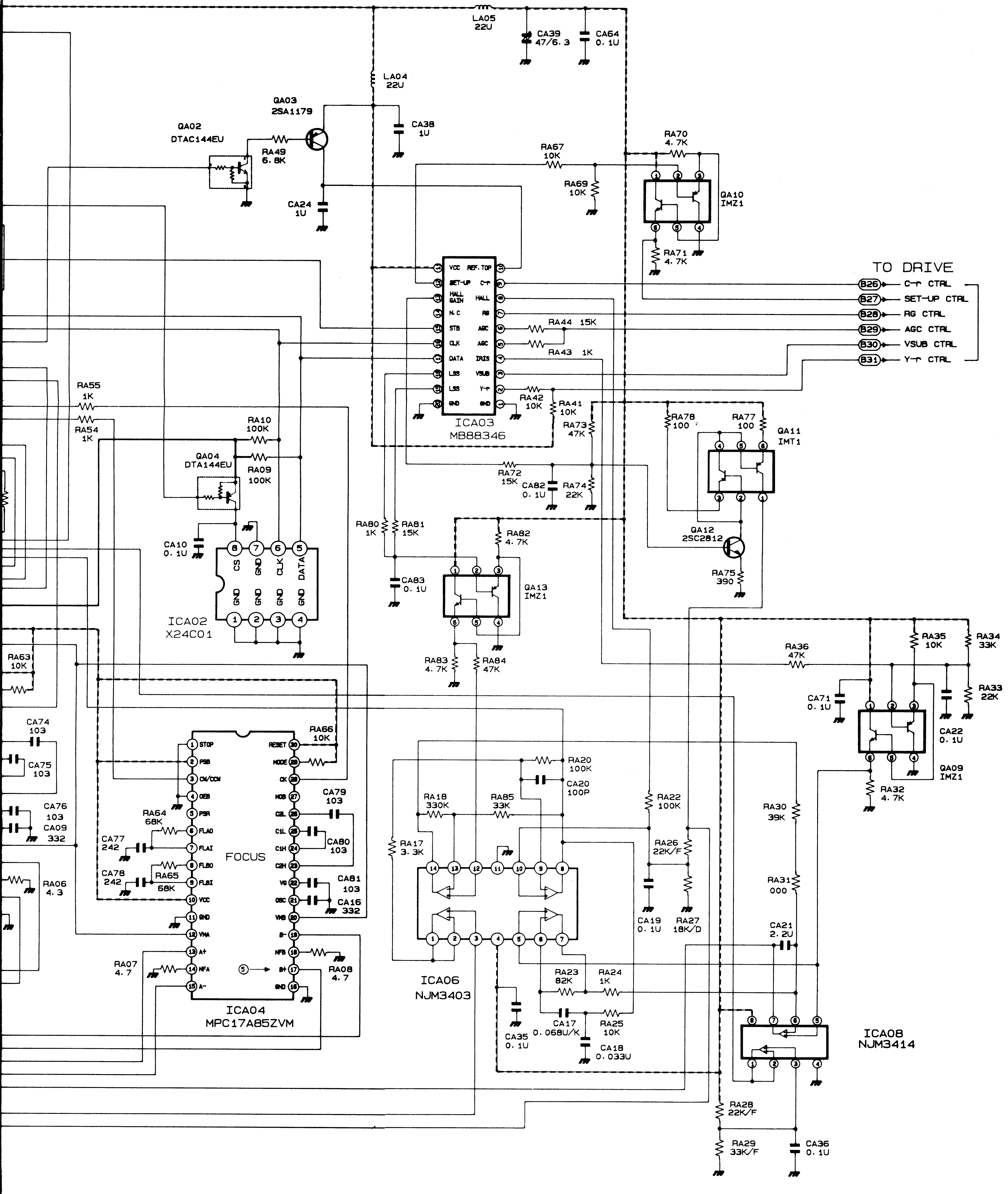


ICA01-39
CO

⑤

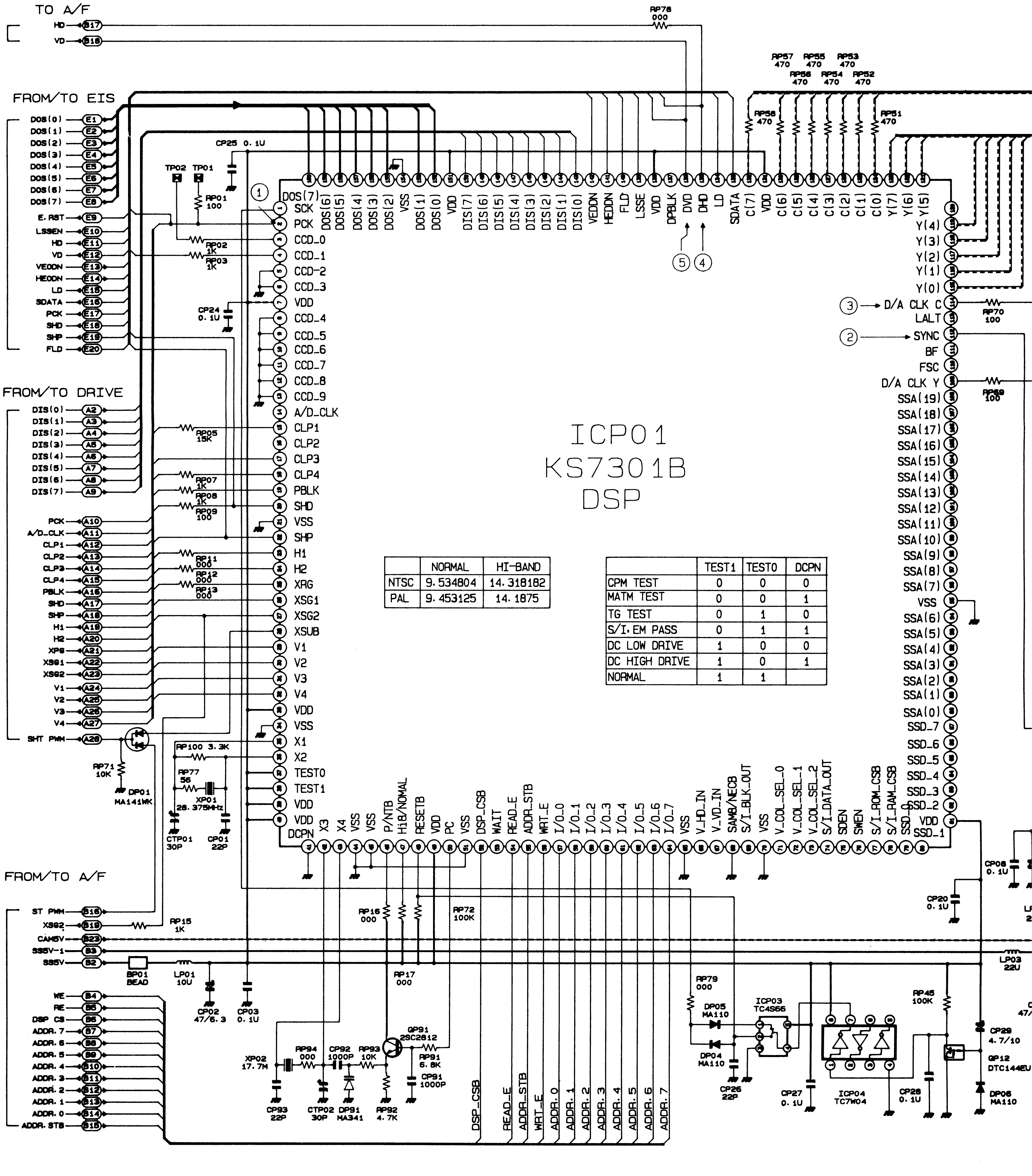


ICA04-17
φB


LA05
22U
CA39
47/6.3
CA64
0.1U
LA04
22U
QA03
2SA1179
CA38
1U
QA02
DTAC144EU
RA49
6.8K
CA24
1U
RA67
10K
RA69
10K
RA70
4.7K
QA10
IMZ1
RA71
4.7K
TO DRIVE
B26 C-r CTRL
B27 SET-UP CTRL
B28 RG CTRL
B29 AGC CTRL
B30 VSUB CTRL
B31 Y-r CTRL
VCC
REF.TOP
SET-UP
C-r
HALL GAIN
HALL
N.C
RG
STB
AGC
CLK
AGC
DATA
IRIS
LSS
VSUB
LSS
Y-r
GND
GND
RA44 15K
RA43 1K
RA42
10K
RA41
10K
ICA03
MB88346
RA73
47K
RA78
100
RA77
100
QA11
IMT1
RA55
1K
RA54
1K
RA10
100K
QA04
DTA144EU
RA09
100K
RA72
15K
CA82
0.1U
RA74
22K
CA10
0.1U
CS
GND
CLK
DATA
GND
GND
GND
GND
ICA02
X24C01
RA80
1K
RA81
15K
RA82
4.7K
QA12
2SC2812
CA83
0.1U
QA13
IMZ1
RA75
390
RA63
10K
RA83
4.7K
RA84
47K
RA36
47K
RA35
10K
RA34
33K
CA71
0.1U
RA33
22K
CA74
103
CA75
103
RA66
10K
STOP
RESET
PSB
MODE
CM/CCM
CK
OEB
MOB
PSR
C2L
FLAO
C1L
FLAI
C1H
FLBO
C2H
FLBI
VG
VCC
OSC
GND
VMB
VMA
B-
A+
NFB
NFA
B+
A-
GND
FOCUS
CA79
103
CA76
103
CA09
332
RA64
68K
CA77
242
CA80
103
CA78
242
RA65
68K
CA81
103
CA16
332
RA06
4.3
RA07
4.7
RA08
4.7
ICA04
MPC17A85ZVM
RA20
100K
CA20
100P
RA18
330K
RA85
33K
RA22
100K
CA22
0.1U
QA09
IMZ1
RA32
4.7K
RA30
39K
RA17
3.3K
RA26
22K/F
CA19
0.1U
RA27
18K/D
RA31
000
CA21
2.2U
ICA06
NJM3403
RA23
82K
RA24
1K
CA17
0.068U/K
RA25
10K
CA35
0.1U
CA18
0.033U
ICA08
NJM3414
RA28
22K/F
RA29
33K/F
CA36
0.1U

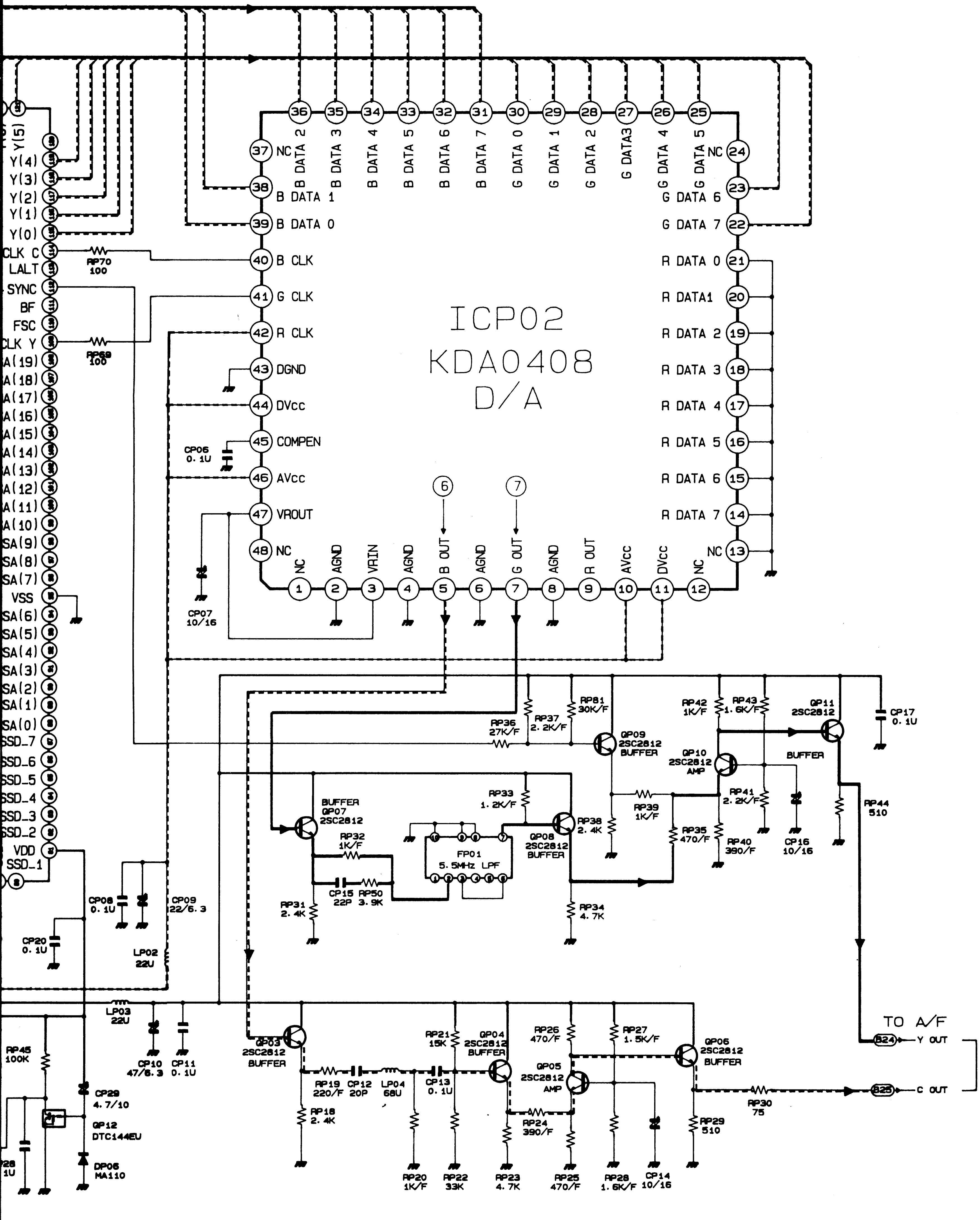
12-14. PROCESS

——— A/D CONVERTER OUTPUT
- - - - C OUTPUT
——— Y OUTPUT
- - - - DSP OUTPUT

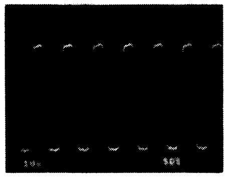

TO A/F
HD B17
VD B18
RP78 000
FROM/TO EIS
DOS(0) E1
DOS(1) E2
DOS(2) E3
DOS(3) E4
DOS(4) E5
DOS(5) E6
DOS(6) E7
DOS(7) E8
E.RST E9
LSSEN E10
HD E11
VD E12
VEDON E13
HEDON E14
LD E15
SDATA E16
PCK E17
SHD E18
SHP E19
FLD E20
FROM/TO DRIVE
DIS(0) A2
DIS(1) A3
DIS(2) A4
DIS(3) A5
DIS(4) A6
DIS(5) A7
DIS(6) A8
DIS(7) A9
PCK A10
A/D_CLK A11
CLP1 A12
CLP2 A13
CLP3 A14
CLP4 A15
PBLK A16
SHD A17
SHP A18
H1 A19
H2 A20
XP6 A21
XSG1 A22
XSG2 A23
V1 A24
V2 A25
V3 A26
V4 A27
SHT PWM A28
FROM/TO A/F
ST PWM B16
XSG2 B19
CAM5V B23
SS5V-1 B3
SS5V B2
WE B4
RE B5
DSP CS B6
ADDR.7 B7
ADDR.6 B8
ADDR.5 B9
ADDR.4 B10
ADDR.3 B11
ADDR.2 B12
ADDR.1 B13
ADDR.0 B14
ADDR.STB B15
ICP01
KS7301B
DSP
TP02 TP01
CP25 0.1U
RP01 100
RP02 1K
RP03 1K
CP24 0.1U
RP05 15K
RP07 1K
RP08 1K
RP09 100
RP11 000
RP12 000
RP13 000
RP71 10K
DP01 MA141WK
RP100 3.3K
RP77 56
XP01 28.375MHz
CTP01 30P
CP01 22P
BP01 BEAD
LP01 10U
CP02 47/6.3
CP03 0.1U
RP15 1K
RP16 000
RP17 000
RP72 100K
XP02 17.7M
RP94 000
CP92 1000P
RP93 10K
QP91 2SC2812
RP91 6.8K
CP91 1000P
CP93 22P
CTP02 30P
DP91 MA341
RP92 4.7K
RP79 000
DP05 MA110
DP04 MA110
ICP03 TC4S66
CP26 22P
CP27 0.1U
ICP04 TC7W04
CP28 0.1U
RP45 100K
CP29 4.7/10
QP12 DTC144EU
DP06 MA110
CP08 0.1U
CP20 0.1U
LP03 22U
RP57 470
RP55 470
RP53 470
RP56 470
RP54 470
RP52 470
RP58 470
RP51 470
RP70 100
RP69 100
① DOS(7)
SCK
PCK
CCD_0
CCD_1
CCD_2
CCD_3
VDD
CCD_4
CCD_5
CCD_6
CCD_7
CCD_8
CCD_9
A/D_CLK
CLP1
CLP2
CLP3
CLP4
PBLK
SHD
VSS
SHP
H1
H2
XRG
XSG1
XSG2
XSUB
V1
V2
V3
V4
VDD
VSS
X1
X2
TEST0
TEST1
VDD
VDD
DCPN
X3
X4
VSS
VSS
P/NTB
Hi8/NOMAL
RESETB
VDD
PC
VSS
DSP_CSB
WAIT
READ_E
ADDR_STB
WRT_E
I/O_0
I/O_1
I/O_2
I/O_3
I/O_4
I/O_5
I/O_6
I/O_7
VSS
V_HD_IN
V_VD_IN
SAMB/NECB
S/I_BLK_OUT
VSS
V_COL_SEL_0
V_COL_SEL_1
V_COL_SEL_2
S/I_DATA_OUT
SDEN
SWEN
S/I_ROM_CSB
S/I_RAM_CSB
SSD_0
SSD_1
VDD
SSD_2
SSD_3
SSD_4
SSD_5
SSD_6
SSD_7
SSA(0)
SSA(1)
SSA(2)
SSA(3)
SSA(4)
SSA(5)
SSA(6)
VSS
SSA(7)
SSA(8)
SSA(9)
SSA(10)
SSA(11)
SSA(12)
SSA(13)
SSA(14)
SSA(15)
SSA(16)
SSA(17)
SSA(18)
SSA(19)
D/A CLK Y
FSC
BF
② SYNC
LALT
③ D/A CLK C
Y(0)
Y(1)
Y(2)
Y(3)
Y(4)
Y(5)
Y(6)
Y(7)
C(0)
C(1)
C(2)
C(3)
C(4)
C(5)
C(6)
C(7)
VDD
SDATA
LD
DHD
DVD
DPBLK
VDD
LSSE
FLD
HEDON
VEDON
DIS(0)
DIS(1)
DIS(2)
DIS(3)
DIS(4)
DIS(5)
DIS(6)
DIS(7)
VDD
DOS(0)
DOS(1)
VSS
DOS(2)
DOS(3)
DOS(4)
DOS(5)
DOS(6)
⑤ ④
DSP_CSB
READ_E
ADDR_STB
WRT_E
ADDR.0
ADDR.1
ADDR.2
ADDR.3
ADDR.4
ADDR.5
ADDR.6
ADDR.7

	NORMAL	HI-BAND
NTSC	9.534804	14.318182
PAL	9.453125	14.1875

	TEST1	TEST0	DCPN
CPM TEST	0	0	0
MATM TEST	0	0	1
TG TEST	0	1	0
S/I. EM PASS	0	1	1
DC LOW DRIVE	1	0	0
DC HIGH DRIVE	1	0	1
NORMAL	1	1	

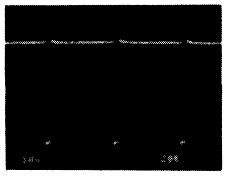

ICP02
KDA0408
D/A
NC
B DATA 2
B DATA 3
B DATA 4
B DATA 5
B DATA 6
B DATA 7
G DATA 0
G DATA 1
G DATA 2
G DATA3
G DATA 4
G DATA 5
B DATA 1
B DATA 0
B CLK
G CLK
R CLK
DGND
DVcc
COMPEN
AVcc
VROUT
G DATA 6
G DATA 7
R DATA 0
R DATA1
R DATA 2
R DATA 3
R DATA 4
R DATA 5
R DATA 6
R DATA 7
AGND
VRIN
B OUT
G OUT
R OUT
DVcc
Y(5)
Y(4)
Y(3)
Y(2)
Y(1)
Y(0)
CLK C
LALT
SYNC
BF
FSC
CLK Y
VSS
VDD
RP70 100
RP69 100
CP06 0.1U
CP07 10/16
CP08 0.1U
CP09 22/6.3
CP20 0.1U
LP02 22U
LP03 22U
CP10 47/6.3
CP11 0.1U
RP45 100K
CP29 4.7/10
QP12 DTC144EU
DP06 MA110
RP36 27K/F
RP37 2.2K/F
RP81 30K/F
QP09 2SC2812 BUFFER
RP42 1K/F
RP43 1.6K/F
QP11 2SC2812
CP17 0.1U
QP10 2SC2812 AMP
BUFFER
RP41 2.2K/F
RP39 1K/F
RP35 470/F
RP40 390/F
CP16 10/16
RP44 510
BUFFER QP07 2SC2812
RP33 1.2K/F
RP38 2.4K
QP08 2SC2812 BUFFER
RP32 1K/F
FP01 5.5MHz LPF
CP15 22P
RP50 3.9K
RP31 2.4K
RP34 4.7K
TO A/F
B24 Y OUT
B25 C OUT
QP03 2SC2812 BUFFER
RP21 15K
QP04 2SC2812 BUFFER
RP26 470/F
RP27 1.5K/F
QP06 2SC2812 BUFFER
QP05 2SC2812 AMP
RP19 220/F
CP12 20P
LP04 68U
CP13 0.1U
RP18 2.4K
RP24 390/F
RP30 75
RP29 510
RP20 1K/F
RP22 33K
RP23 4.7K
RP25 470/F
RP28 1.6K/F
CP14 10/16

①



ICP01-2
PCK

②



ICP01-112
SYNC

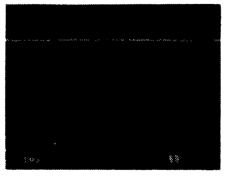
③

ICP01-114
D/A CLK C

④

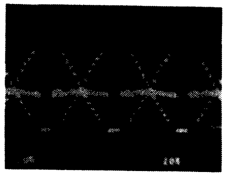
ICP01-135
HD

⑤



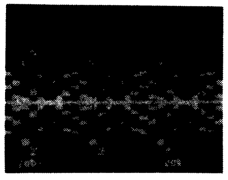
ICP02-136
VD

⑥



ICP02-5
D/A CONV. C OUT

⑦



ICP02-7
D/A CONV. Y OUT